7 Otto 659
Oct. 7. 1878

TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

No. ~~245.~~ 342

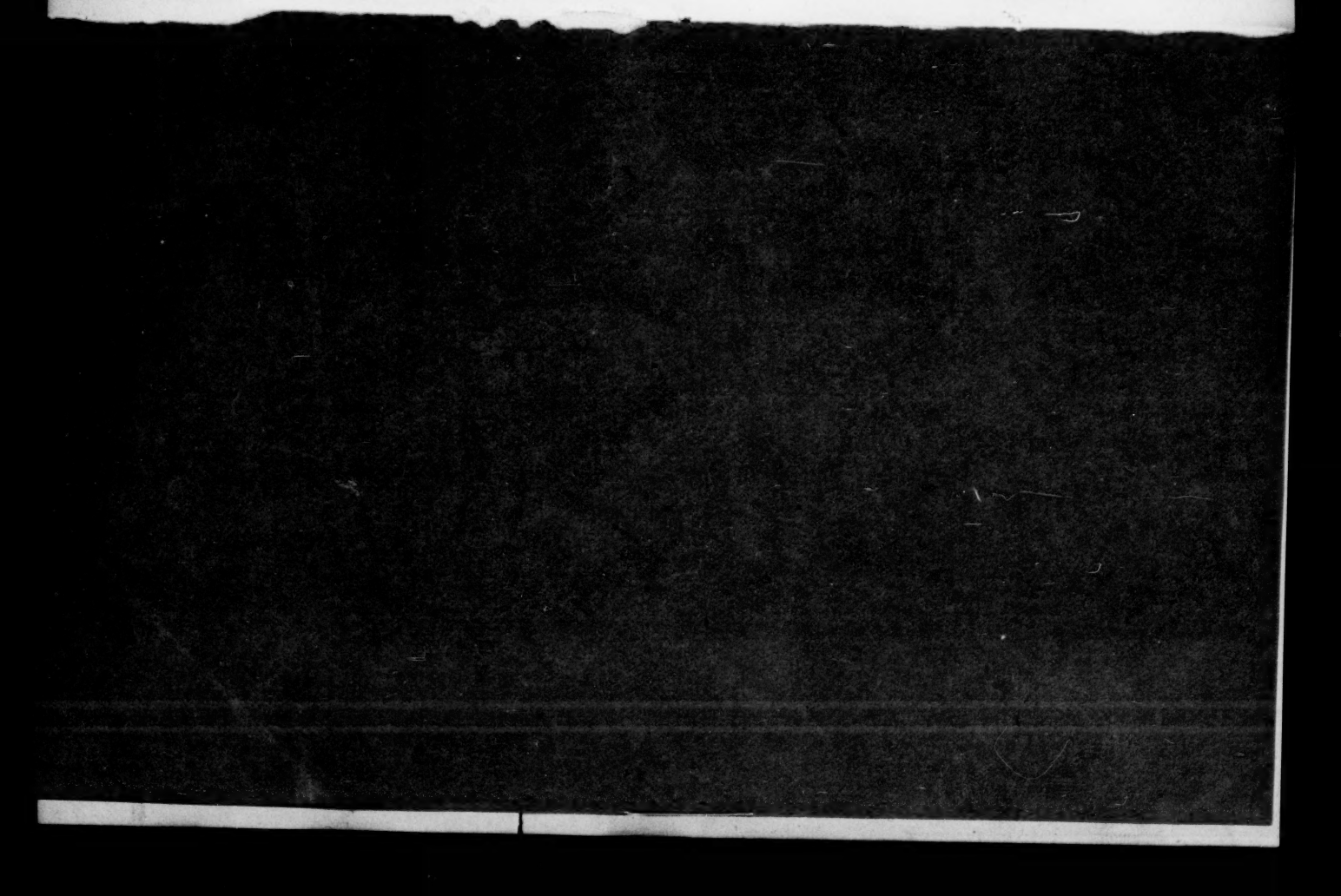
THE NORTHWESTERN FERTILIZING COMPANY, PLAINTIFF IN ERROR,

vs.

THE VILLAGE OF HYDE PARK, CHAUNCEY M. CADY, W. E. HALE, A. D. WALDRON, L. G. FISHER, E. G. CLARKE, M. DOYLE, J. M. BARNEY, L. BRADNER, AND H. VANDERBILT, TRUSTEES OF SAID VILLAGE.

IN ERROR TO THE SUPREME COURT OF THE STATE OF ILLINOIS.

FILED NOVEMBER 27, 1874.



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a At a supreme court begun and held at Ottawa, on Tuesday the ninth day of September, in the year of our Lord one thousand eight hundred and seventy-three, within and for the northern grand division of the State of Illinois:

Present: Sidney Breese, chief-justice; Pinkney H. Walker, justice; John M. Scott, justice; W. K. McAllister, justice; Benjamin R. Sheldon, justice; John Scholfield, justice; Alfred M. Craig, justice.

Appeal from the circuit court of Cook County.

THE NORTHWESTERN FERTILIZING COMPANY } No. 457.
vs.
THE VILLAGE OF HYDE PARK. }

b Be it remembered that heretofore, to wit, on the tenth day of September, in the year of our Lord one thousand eight hundred seventy-three, came the Northwestern Fertilizing Company, appellant herein, by Sweet and Herrick, its attorneys, and filed in the supreme court its certain transcript of record and proceedings in the circuit court of Cook County, State of Illinois; which is in the words and figures following, to wit:

c STATE OF ILLINOIS,
Cook County:

THE NORTWESTERN FERTILIZING COMPANY }
v.
THE VILLAGE OF HYDE PARK. }

It is hereby stipulated that the following contains a true copy of the record in the above cause, so far as the same becomes material for its consideration by the appellate court.

LEONARD SWETT,
Solicitor for Complainant.
CHAS. HITCHCOCK,
Solicitor for Respondents.

CHICAGO, *August*, 1873.

1 Be it remembered that heretofore, to wit, on the 11th day of January, A. D. 1873, the Northwestern Fertilizing Company, by Bentley, Swett & Quigg, its solicitors, filed in said court its certain bill of complaint, in the words and figures following, to wit:

In the circuit court, January term, A. D. 1873.

STATE OF ILLINOIS,
Cook County:

To the honorable judges of the circuit court of Cook County, in chancery sitting.

The Northwestern Fertilizing Company, a corporation created by, and organized under, the laws of the State of Illinois, and located and transacting business in Cook County, in said State, brings this its bill of complaint against the village of Hyde Park, a municipal corporation, also created by and organized under the laws of the State of Illinois, and C. M. Cady, a trustee and president of the board of trustees

of said village, and W. E. Hale, A. D. Waldron, S. G. Fisher, E. G. Clarke, M. Doyle, J. F. Barney, L. Bradner, jr., and H. Vanderbilt, trustees of said village.

Whereupon the complainant says:

SUMMARY OF THE CHARTER.—On the eighth day of March, A. D. 1867, an act was passed by the legislature of the State of Illinois, and became a law, by which, among other things, Christian Wahl, Louis Wahl, and John A. Lighthall, and their successors, associates, and assigns, were constituted and appointed a body corporate and
2 politic, with power of continued succession, for the term of fifty years, by the name of the Northwestern Fertilizing Company, and empowered by that name to contract and be contracted with, sue and be sued as a natural person, to have and use a common seal, and the right to purchase and hold sufficient real-estate for the free enjoyment of all the privileges granted, and to make by-laws and rules for the government of said corporation.

The act also provided that the capital stock of the company should be fifty thousand dollars, with power to increase the same to any sum not exceeding two hundred and fifty thousand.

It also provided that the incorporators named might, any time after the passage of the act, organize said company upon stock being subscribed to the amount of fifty thousand dollars, issue certificates, and elect officers created by the by-laws, and that said officers should hold their offices for the period prescribed.

CHARACTER OF THE WORKS.—The corporation was also authorized and empowered to establish and maintain chemical and other works at the place designated, for the purpose of manufacturing and converting dead animals and other animal matter into an agricultural fertilizer and other chemical products, by means of chemical, mechanical, and other processes.

The charter also provided that said chemical works should be located in Cook County, Illinois, south of the dividing-line between townships thirty-seven and thirty-eight, and that the corporation might maintain depots in the city of Chicago, in said county, for the purpose of
3 receiving and carrying off any and all offal, dead animals, and animal matter which it might buy or own, or which might be delivered to it by the city authorities and other persons, and that the act creating these corporate rights and privileges should take effect and be in force from and after its passage.

THE SLAUGHTERING AND THE OFFAL.—The complainant craves leave to refer to the said act of incorporation as a part of this its bill of complaint, with the same benefit as if it had been herein set forth at length. A copy of the said act is hereunto attached, marked "Exhibit A."

The complainant would also say that since the introduction of railroad transportation to the Atlantic cities and the region east of the Alleghanies, the city of Chicago has been rapidly becoming, and has now become, in reference to the slaughtering and packing of animals for human consumption, the largest market in the world. It receives more largely than any other city the surplus productions of animals from Minnesota to the Rio Grande, and west to the Rocky Mountains. Since 1850 the rapid growth and development of the country west, northwest, and southwest has increased this business with marvelous rapidity.

The number of animals slaughtered in Chicago between Jan. 1, 1872, and Jan. 1, 1873, the complainant is informed by the official Union Stock Yards reports, and believes, is as follows:

Hogs slaughtered	1,417,029	
Cattle "	174,050	
Sheep "	165,099	
	1,756,178	

4 The amount of offal and blood which the slaughtering of these animals produces borders on the horrible.

The cattle-blood is	647,500	gallons.
Hogs "	1,500,000	"
Sheep "	58,333	"
Total	2,205,833	
Cattle-tank offal	4,675	tons.
Hog " "	15,000	"
Sheep " "	1,500	"
Total	21,175	tons.

The offal included in the above statement is the heads, livers, lungs, lights, entrails, and other trimmings of the animal. These parts, as soon as separated, are rendered in tanks at the slaughter-houses, by the application of steam to extract the grease, and the residuum is called tank-offal. The blood is not utilized by the packers. This gives as a refuse or discharge from the packing-houses 21,175 tons of tank-offal and 2,205,833 gallons of blood every year, consisting of materials which, until recently, considered in such immense quantities, were valueless, and in reference to which, as yet, the only object of the packers is to get rid of it.

This business, as complainant is informed and believes, employs directly in slaughtering and handling the animals in the city and at the Union Stock Yards, about three miles therefrom, some five thousand men; about twenty thousand are engaged in industries dependent upon it; and it supports in and around Chicago not less than 100,000 people. It is the largest interest in the city.

5 LOCAL DIFFICULTIES.—As bearing upon the question of public policy and necessity in construing its act of incorporation, the complainant also would show that there are local difficulties attending the disposal of this offal in Chicago, growing out of its geographical and topographical location. At St. Louis, Council Bluffs, Dubuque, Burlington, Peoria, Cincinnati, in the West; and Allentown, Gordonsville, Philadelphia, Baltimore, and Richmond, in the East; all have large and rapidly-flowing rivers, and by the location of their slaughter-houses upon the margins of such rivers, below the city, the difficulty is at once solved. New York and Boston have the ocean, whose waters are too vast to be corrupted, and tend to purify whatever they receive. Chicago is absolutely without natural drainage.

The difficulty here is also enhanced by the suddenness with which this material is produced and accumulates. The packing-season commences the 1st of November and ends the first day of March. During that time, of hogs alone, about 12,000 are slaughtered daily. This, with the other slaughtering during the packing-season, produces, every working-day between the first of November and the first day of March, substantially $135\frac{5}{26}$ tons of tank-offal and $14{,}697\frac{3}{13}$ gallons of blood. Thus the sacrifice at the great Temple's dedication was little more than a common day's work of our constant sacrifice to the remorseless appetites of modern times.

It is self-evident that this material cannot be deposited upon the surface of the ground to decay in the sun. It is so enormous and bulky it cannot be buried, and even if it could, the earth would not hold the noxious gases it would generate. It cannot be cast into the Chi-
6 cago River or the lake, and nothing remains but to convert it into agricultural fertilizers and other chemicals, thus utilizing and consuming it, or to drive the packing-interest from the city.

The history of the difficulties heretofore enumerated demonstrate this conclusion.

GROWTH OF THE PACKING BUSINESS.—In the infancy of this business, the quantity, being small, was buried and otherwise properly disposed of with ease, but in time the business and the amount of offal increased, until neither the water nor the earth could hide it.

The following is a summary, showing the growth of the packing business in Chicago:

Cattle slaughtered for city consumption and packed within the last sixteen years.

1856	9,448	1864	157,107
1857	23,022	1865	90,596
1858	74,006	1866	130,454
1859	54,601	1867	114,385
1860	51,631	1868	108,547
1861	80,433	1869	108,385
1862	96,910	1870	141,255
1863	95,134	1871	141,123

Hogs packed in Chicago during the last twenty-one years.

1851–2	22,936	1862–3	970,264
1852–3	44,156	1863–4	904,659
1853–4	52,849	1864–5	760,514
1854–5	73,994	1865–6	507,355
1855–6	80,389	1866–7	639,332
1856–7	74,000	1867–8	796,226
1857–8	99,262	1868–9	617,558
1858–9	179,684	1869–70	685,959
1860–1	151,329	1870–1	988,087
1861–2	505,691	1871–2	1,225,236

7 THE CHICAGO RIVER.—The slaughtering and packing houses are generally located upon the Chicago River and its north and south branches. These branches flow from northerly and southerly directions and unite within the city, thus forming one main stream, which flows through the central part of the city into the lake. The river is muddy, the current sluggish, and its mouth at the margin of the lake, upon a north and south line, is in the most populous part of the city. As the offal and blood increased beyond the capacity of the packers for its easy disposition, it found its way into the river, making it offensive beyond description and beyond comprehension, except to those who remember it. So much as was not thus disposed of was deposited upon the prairie everywhere, west, northwest, and southwest of the city, and not very distant from it.

THE WATER-WORKS AND THE WIND.—The city water-works were located near the mouth of the river, drawing their supply for family consumption from the margin of the lake. Three thousand six hundred

and thirty-six observations, taken at regular intervals during the last five years, show that the wind blew from the east, northeast, and southeast thirteen hundred and fifteen times. The shore-line of the city is so situate that all of these winds strengthen the natural current of the lake towards the shore, and blow the waters of the river back upon its mouth and the adjacent shore-line. Out of the same number of observations within the same time the wind blew from the west, northwest, and southwest eighteen hundred and thirty-two times. The city is so located that all of these westerly winds blew the noxious gases generated by
8 the offal deposited upon the prairie into the city. Thus more than five-sixths of the time the wind either blew the putrid waters of the river back upon the margin of the lake to be pumped into the reservoirs and thence to be drunk in the tea and coffee or from the drinking-cups of the citizens, or the city was filled with the breath of the pestilence from the west, leaving about one day in a week as a kind of Sabbath to recuperate on a square breath either from the north or the south, which did not bring the putrefactions in the air or the water. These facts made Chicago the natural ally of disease. The pestilence came here first and staid the longest.

THE LAKE.—The complainant also says that this offal could not then and cannot now be taken out in barges and deposited in the lake, as in New York and Boston, because most of it is produced in the winter, when the lake is frozen; and, besides, there is a strong current towards the shore where Chicago is located, which brings even soil from more northern regions, and, depositing it upon the shore, forms accretions of land in front of the city several feet each year. In the ocean the salt water arrests decomposition, and its turbulence and the tides scatter the offal everywhere, and the fishes devour it. Here the water is fresh and generally calm, with no tide, and the fish are wholly inadequate to the lunch. As soon as decomposition commences, the offal rises to the surface, even if it sinks at first, so that 2,000,000 gallons of blood, deposited in the lake at Chicago, with a never-varying current towards the shore, would make the basin of the lake bloodier than the waters of Egypt, and 21,000 tons of offal would give its margin a fringe of rotten heads, legs, livers, entrails, and lights.

9 THE SOLUTION.—Under these circumstances, the proper solution of this difficulty became of vital importance, not only to the city and the State, but to so much of the adjacent country as found a market at Chicago for its animal productions. It was solved in the following manner: The State agreeing ultimately to take the improvement and pay the expense, the city advanced about $3,000,000 to deepen the Illinois and Michigan Canal, so as to turn the Chicago River up stream and form a current from the lake through it and the canal to the Illinois and Mississippi Rivers.

The city also, at an expense of more than $2,000,000, extended a tunnel under the bottom and two miles out into the deep water of the lake, that it might have a supply of water cooler than from the rock and absolutely free from impurities; and the legislature chartered the Northwestern Fertilizing Company, authorizing it for the period of fifty years thereafter to utilize and consume the offal and blood and dead animals accumulating in the city, provided it would fix the location of its works at a point in Cook County south of the dividing line between townships thirty-seven and thirty-eight.

CHARTERED RIGHTS.—Your orator claims, as a matter of law, that having become duly organized under said charter, and having invested the full sum of $250,000 in the business especially authorized, and hav-

ing enlarged its works so to be able to take off, utilize, and consume in a manner the most scientific now known, and with the least possible offensiveness to the public, all the offal, blood, and animal matter the city produces, it now has a vested right, subject to reasonable and proper police regulations, to carry on said business for the period of time named in the charter.

POLICE POWERS.—The complainant concedes its duty to handle said animal matter in a skillful and scientific manner, and so as not to be unnecessarily offensive to the sight or the senses, and to introduce into its establishment the most approved of the tested and accepted processes and machinery. Upon this point it avers that, from the date of the organization of said company until the time of the filing of this bill of complaint, it has not only on all occasions handled the material properly, according to the methods known, so as not to be unnecessarily offensive, and introduced as fast as they have been tested and accepted all the improvements known in that business, but, that this question might be successfully solved, it has until last year expended all its profits and part of its capital in making and testing improvements and in throwing away old machinery and getting new, and that it now has an establishment the largest and, considering the magnitude of it, the most improved and the best in the world. Your orator also claims that, having complied voluntarily with all the requirements which proper police regulations could legally exact, it is not only entitled to prosecute its business for the period named, but is entitled to do it in peace.

In order that your honors may understand what might be reasonably required by way of care in handling the material, and the improvements in machinery which might be demanded, the following facts are set forth in reference to the character of the business permitted by the charter, how it is done, what improvements have been made, to what degree the obstacles have been overcome, and the extent to which those remaining may reasonably be expected to be overcome in the future.

THE BUSINESS BEFORE THE CHARTER WAS GRANTED.—In the year A. D. 1865, the firm of Wahl Bros. & Lighthall, having been for many years engaged in the manufacture of glue from the hoofs and other parts of slaughtered animals, were induced by the packers, as a mode of relieving them and the city from the accumulating mass of offal, to engage in the business of converting it into an agricultural fertilizer at the place where the works of the Northwestern Fertilizing Company are now situated. They were the first in the city to engage in this business. Little was then known of the manner in which such business should be carried on, and no machinery was in use or was known.

PROCESS OF MANUFACTURE.—The process of manufacturing fertilizers from offal consists in vaporizing the water from the animal matter, and obtaining a dry residuum, not offensive nor liable to immediate decomposition, which contains ammonia. This residuum being placed upon the ground and plowed or harrowed in becomes a fertilizer. The ammonia produced from the flesh and blood and phosphate of lime produced from the bones enriches and strengthens the land, and the dry animal residuum placed in the ground itself decays and fructifies the soil. The greater the quantity of animal residuum produced and the less the amount of decomposition which takes during the process, the greater will be the quantity of residuum and the percentage of ammonia it will contain and the greater the value of the product. On the contrary, the greater the amount of decomposition, the greater the loss of ammonia and animal residuum, and the greater will be the offensive smell produced.

FORMER PROCESS.—At the time said Wahl Bros. and Lighthall commenced this business in 1865, the only process known was to receive the material in the winter and pile it up, and spread it out in the spring to dry it in the air and the sun. This process would, in the end, vaporize and expel the water and produce a dry residuum which contained some ammonia, but the process also produced decomposition, by which the animal residuum and the percentage of ammonia it should contain were both diminished.

THE TWO COMPARED.—The result of the process was that about thirty per cent. of organic residuum was obtained, containing about three per cent. of ammonia. By the process and machinery now used by the complainant sixty per cent. of dry organic matter is produced, which contains eight or nine per cent. of ammonia. The ammonia and the animal matter lost by decomposition is what constitutes the offensive smell, and the effect of the improved process is that thirty per cent. of the animal matter and five or six per cent. of ammonia is saved which formerly passed into the air and annoyed the public. This comparison of the processes and the result refers to animal matter without bone, and after thirty per cent. of water has been added to it by a steam process of rendering at the packing-houses for the purpose of extracting the grease. The animal matter as received by your orator from the tanks contains on an average about nine per cent. of ammonia, and by its process only about one per cent. is lost.

13 Between 1865, when this business was commenced, and 1867, the date of the act of incorporation, Wahl Bros. & Lighthall carried on said business as above described, spreading the material out upon the ground or a platform, and saving what failed to decompose. They also established platforms in the city for the reception of offal, and took it out through the town of Hyde Park by way of the Pittsburgh & Ft. Wayne Railroad to the place where the complainant now carries on the same business. From 1865 to 1867 a large portion of the offal of the packing and slaughtering business found an outlet in this manner, and in order that said business might not be interfered with or broken up, and that it might be enlarged and improved by the introduction into it of sufficient capital, and from public necessity arising from the facts in reference to the packing-business previously stated, the legislature, in 1867, chartered the business as it then existed, and authorized, under the protection of that charter, the investment of two hundred and fifty thousand dollars in it.

CORPORATE ORGANIZATION.—After the passage of said charter, to wit, on the thirteenth day of December, 1867, the corporate organization therein contemplated was lawfully perfected by a meeting of a majority of the incorporators, the subscription of stock to the amount of $50,000, the adoption of by-laws, the election of officers, and the performance of all the other acts named in the charter by said incorporators to be performed. Said $50,000 subscribed was actually paid, and thereafter, to wit, on the day of , the capital stock was increased to the sum of $250,000, all of which has also been paid in and invested in said

14 business. Prior to the organization of the corporation, said Wahl Bros. & Lighthall had invested in land, buildings, and improvements, about $45,000. These were purchased by the complainants and made the bases of the present works. Since then the complainant has enlarged the buildings, bought machinery, perfected inventions, and improved the process. As a result of these improvements, of ammonia, one of the offensive elements, it saves two hundred per cent. more, and of animal matter one hundred per cent. more, than was saved at first;

or, in other words, by its improved processes and machinery now, when it utilizes and consumes nine-tenths of all the offal and blood which the city produces, it does it with very much less than one-half the offensive odor that the business produced when it was legalized and permitted by the charter.

IMPROVEMENTS.—Your orator would further show, as some of the items of expenditure to enable it to handle properly and utilize the material, it has bought, for the sum of fifteen thousand dollars, including the improvements since put upon it, four acres of ground for a depot at the Union Stock Yards, about three miles from the city. The object of this purchase was to fix the depot outside the city, and where it would be the least annoyance. To this depot, in tight box-wagons, the offal and blood is hauled the same day it is ready for delivery from the packing and slaughter houses. At the depot it is loaded into tight box-cars made expressly for this business. Each day, as a rule, except as to the interruption of the village of Hyde Park, as hereinafter named, the depot is cleaned up.

15 At the establishment twelve contiguous acres have been added to what was purchased by Wahl Bros. & Lighthall. Additional side-tracks, sufficient to handle the material with convenience, have been put in, the buildings have been enlarged, and the complainant has spent more than $100,000 in erection and changes of building, improved processes, changes of machinery, experiments, and employment of the leading chemists of the country, in order to ascertain the best method possible in which to prosecute this business.

Complainants and its stockholders have also obtained five patents for improvements in their drying-machinery. This machinery, as complainant is informed and believes, is now the best and reduces the material with the greatest economy of any now in use. It may be described as follows: A revolving cylinder, thirty feet long and thirty-six inches in diameter, is arranged horizontally, with a revolving shaft passing through the center of it. Rakes or teeth are attached to the shaft, and so arranged as to keep the material in constant motion and move it along from the end in which it is introduced towards the opposite or discharging end. The whole is so constructed and moved that while the cylinder revolves once the interior shaft revolves twice at the same time.

At the same end at which the matter is put into the cylinder is a smoke-stack, with a communication between that end of the cylinder and the stack. The cylinder is also enclosed on all sides by a brick wall. Within this exterior wall, four coal-fires within two feet of the cylinder are kept burning. These fires are so regulated as to envelop and apply to the cylinder a mild and uniform heat. The brick wall, within

16 which the heated air is contained, confines the heat, and the discharging end of the cylinder being open, and the matter within the cylinder so introduced and moved as to give a draft through it, the heated air passes into the discharging end, permeates and passes through the animal matter within the cylinder, and thence through the smoke-stack to the air. A diagram of the dryer described is hereunto attached, marked "Exhibit B." It is correct, except that since it was made the machine has been so improved as to have four fires under it, instead of two, as represented, and a few other changes have also been made. The object of the change in the number of fires is to give greater uniformity to the heat.

Before the complainant commenced business under its act of incorporation, no blood had been utilized at Chicago upon any scale approxi-

mating the need. The complainant now not only consumes substantially all that is produced, but has succeeded in overcoming the obstacles, and does it without creating any material offensive odor.

As it is taken from the slaughter-houses, three hundred pounds of acid to the dry ton is mixed with it at the depot at the stock-yards. This is done before decomposition commences. The acid coagulates the blood and expels a large part of the water, leaving it a hard gelatinous mass. When it arrives at the works it is passed through the machine described, the water remaining is vaporized, and a residuum obtained containing substantially all the ammonia it contained when fresh from the animal. The amount of ammonia in blood is fourteen parts. Complainant gets within a fraction of it.

17 The tank offal is rendered at the packing-houses in tanks by the application of steam. When this offal comes from the animal, it contains about fifty parts of watery matter. When it comes from the tanks the matter is like a pulp or a jelly, and contains about thirty parts more of water than naturally. The application of the steam in the tanks hastens putrefaction. As soon as this material is received by the complainant, it is taken to the factory and either dried immediately or proper chemicals are immediately applied to it, by which decomposition is arrested and prevented. Under the old process of exposing it to the sun and the air, decomposition continued. Under the present process, it is arrested, and, being introduced into the revolving cylinder described, in five minutes it passes through it and becomes a fertilizer. If the material was fresh when put into the cylinder, no more offensive odor would arise from the process than from the roasting of a piece of meat. As it is, the only odor which arises is from vaporizing and expelling the watery matter which has become tainted in the rendering. The only thing remaining to make the process as it now is substantially odorless is to condense the steam and burn the gases which may have been generated. This the complainant is and has been experimenting upon, and has been able to do in part. Complainant believes that this difficulty will eventually be overcome, and if left alone it will ultimately be able to reduce the material without serious offensiveness to anybody.

CONTRACTS TO REMOVE OFFAL.—The complainant would further show unto your honors that, although the tank-offal and blood are

18 of no value to the slaughterers and packers, they are careful to secure some sure outlet, and relying upon the security of its chartered rights, it has been anxious to secure a regular and sufficient supply. For these reasons the complainant entered into contracts which are binding and still in force, by which it has agreed to take all the offal and blood which the principal packers produce. Those establishments with which he has no binding contract, it receives their offal by agreement pro tempore, without anything being binding upon either side. The offal which complainant has contracted to receive would amount to from seventy-five to one hundred tons daily, and if it should be prevented from fulfilling these contracts the damages would be large.

AMOUNT RECEIVED.—The slaughtering of animals for city consumption, not reckoned in the packing business, amounts to about as follows:

Cattle	150,000
Hogs	200,000
Sheep	150,000
Calves	0,000

During the packing-season, the material received by the Northwestern Fertilizing Company amounts to about one hundred and seventy-

five tons per day, and during the remainder of the year from twenty-five to seventy-five tons of bone and offal per day.

The only establishments in the city or in the vicinity which receive offal from the packing and slaughter houses are the Northwest-
19 ern Fertilizing Company and that of Thompson & Edwards, at the stock-yards. The capacity of the latter establishment is only from 1,500 to 2,000 tons of tank-offal a year, with no facilities for using blood. If the complainants' establishment should be closed, there would be about 19,000 tons of tank-offal and 2,000,000 gallons of blood produced, without, as at present situated, any way to dispose of it.

STOCK-YARDS DEPOT.—The complainant in establishing the depot at the Union stock yards, was compelled to obtain permission for that purpose from the town of Lake, in which it is situated, which permission is conditioned upon the prompt removal of the offal every day.

This license, with the condition, is still in force, and the only authority under which affiant has the right to maintain the depot there. About the eighth day of January, 1873, complainant's business was interrupted, as hereinafter described, for about ten days, and during that time it could take no offal from this depot to its factory. Within these ten days there was no place to put the offal and blood except at this depot. It could not remain at the packing-houses. It could not go anywhere else, and it did go there and was deposited upon ground. This deposit covered one acre with blood from one to four feet deep, and another acre with tank offal from one to six feet deep. Chemicals have been applied to the blood, and every proper thing done which could be done, but the weather was intensely cold, and it froze like a rock. This deposit is to the west of Hyde Park, and near to its borders. The winds blow from that direction towards the village more than eighteen hundred
20 times out of thirty-six hundred. The warm weather will thaw this mass so it can be moved, but in the quasi spring days, when the edges of it began to grow lively, it is respectfully submitted whether the elite village of Hyde Park will not suffer from this, the consequence of its own act, more than from the factory.

CONTRACTS FOR FERTILIZERS.—The complainant also avers, that relying upon the vested rights created by its charter and the permanence of its business under it, it has contracted for the delivery of about twenty-five hundred tons of fertilizing material, to be manufactured and delivered during the present year. The complainant expected and intended to fulfill these contracts, and will do so, unless prevented by the interruption hereinafter described. This complainant would also aver, that if prevented from manufacturing said material and fulfilling said contracts, the damages resulting from their breach, with the damages to which it will be liable to the packers for not removing the offal and blood it has contracted to remove, will cause great embarrassment and pecuniary loss.

THE LOCATION SELECTED.—This complainant would further show unto your honors, that the Northwestern Fertilizing Company is located in the county of Cook, in the State of Illinois, south of dividing line between townships thirty-seven and thirty-eight, as prescribed by the charter. It is thirteen miles south, by about half southeast of the city of Chicago, and substantially in the same direction from the village of Hyde Park, and about six miles from what is known as the Hyde Park Hotel, or central and thickly-settled portion of the village. This village, or the thickly-settled portion of it, about the hotel, embraces about
21 3,000 inhabitants within the radius of a mile. Beyond the circle of a mile about the hotel, the country for the remaining five miles

towards the works is sparsely settled, and in the main not settled at all. The largest cluster of houses after leaving the circle of a mile about the hotel is at Ainsworth, where the works are located. This settlement composes about five hundred people, the majority of whom get their livelihood from the complainant's factory.

At the time the location was made, the whole county was scoured in search of a spot given over to desolation, and where the winds would blow the smell of the business away from the city and its environs. With a wise discrimination, and for reasons most obvious, the explorers settled upon Ainsworth, then in the town of Calumet, and in the midst of the swamps and bayous of the Calumet River. It was the home of frogs, turtles, lizards, and snakes, and the eye of a Mississippi alligator would have looked longingly upon this choice retreat. From that point for five miles there was not a house worthy of the name. Only a few fishermen's huts were to be found about the mouth of the Calumet.

In the main the features of the country are unchanged. The reptiles still abound, and when spring unfolds her robes and birds chatter in the groves, nature, kindly in her compensations, gives to the Calumet the festive frog, and the touching notes of his melody fill the air. With his friend, the turtle, he takes comfort in the sun, and when the duck-killer questions a title perfected by nature and prescription, with a triumphant thug he prosecutes an appeal to the water.

22 Notwithstanding these facts, enterprising land merchants have thrown out the pickets of a city there, and occasionally a large building shows its lonesome front and fights the desolation. By a fashionable admixture of politicians in these enterprises, gentlemen have induced the Government to spend large sums of money digging mud out of the Calumet, and call it harbor improvements. They have also filed plats and maps of paper cities, omitting scarcely a swamp, and on the dry land of Stony Island, where practically, in the summer, the boys kill snakes, and omnibus horses are pastured, your honors, by consulting these maps, will find parks called the Elysian Fields, Marathon Avenue, the Appian Way, and all the sweet names the honored past has given us.

The complainant would also state that the location at Ainsworth is the most favorable which could be selected in reference to the prevailing winds in the locality.

THE WINDS.—The shore line of the lake is north and south, bending towards the east. The Northwestern Fertilizing Company, in direction, is south by about half southeast. Thirty-six hundred and thirty-six observations of the wind, taken at regular intervals during the last five years, as complainant is informed and believes, resulted as follows:

738	observations	from	the	northeast.
205	"	"	"	east.
372	"	"	"	southeast.
286	"	"	"	south.
939	"	"	"	southwest.
382	"	"	"	west.
511	"	"	"	northwest.
203	"	"	"	north.

23 Every wind above named would blow any smell from this factory away from Hyde Park and Chicago. Even the south wind, owing to the curvilinear form of the lake-shore, would blow it over the lake. The only wind which would blow the smell, however bad it might be, towards either place would be south by half southeast.

Assuming the wind blows from the south by half southeast as often as from the south, this would give a wind from that point $\frac{286}{3636}$ of the year, or about twenty-eight and one-third days.

PROSECUTIONS.—The complainant would also show that since its corporate organization in December, 1867, it has upon three different occasions been indicted as a nuisance, in the criminal court of Chicago. In answer to said indictments, defendant plead its charter, upon which the court held that it could only be punished by police regulation for not handling the animal matter properly, and for creating unnecessary offensiveness, but could not be punished for carrying on the business in a reasonably prudent and careful manner, although doing the business in the same manner, without a charter, would be a nuisance. Upon such decision, each prosecution has been dismissed and another one afterwards commenced.

The complainant would also show that such prosecutions were inaugurated and carried on by certain parties having an interest in, and, in the main, residing in the town of Hyde Park, and that, finding the chartered rights of the complainant received protection in the courts, said parties have combined, and unlawfully confederated with the
24 municipal authorities of the said town of Hyde Park, to vex, harrass, prosecute, and annoy the said complainant, until, by interfering with its business, hindering and preventing it from carrying it on, and by prosecutions and repeated suits, it might worry the complainant out and drive it from the town.

HYDE PARK.—The complainant would also show that the village of Hyde Park is a municipal corporation, created under the laws of the State of Illinois, and located immediately south of the city of Chicago, and at present embraces within its limits the establishment of the complainant. Originally said establishment was in the town of Calumet, but the said village of Hyde Park, since such establishment was located in the town of Calumet, in fixing its boundaries, extended them so as to embrace that portion of the town which contained the factory of the complainant.

The complainant would also show that the said municipal corporation, the village of Hyde Park, and the trustees thereof named in this bill of complaint, colluding and combining with various parties to your orators unknown, and pretending to exercise police authority under the power given them by law, to make all regulations which may be necessary and expedient for the promotion of health and the suppression of disease, have undertaken to interfere with and utterly break up and destroy your orator's business, and prevent it from pursuing the same according to the act of incorporation aforesaid, and have given out, threatened, and publicly declared that they will continue said interference until the complainant shall be driven out of the said town, and the privileges guaranteed by said act of incorporation shall be destroyed. This unlawful combination and purpose is sought to be carried
25 out and enforced by the said trustees and their confederates and co-conspirators under the pretense of police regulations, and by virtue of said pretense said trustees have passed, published, and are now endeavoring to enforce the following ordinance, viz:

"No person shall transport, haul, or convey any offal, dead animals, or other unwholesome matter, or material, into or through the village of Hyde Park; and any person who shall be in charge of, or employed on any train or team carrying or conveying any such matter or material into or through the village of Hyde Park shall be subject to a fine of not less than five nor more than fifty dollars for each offense."

And the complainant avers that the carrying of the offal from its depots in the city of Chicago and the Union Stock Yards, by means of the Pittsburgh and Fort Wayne Railroad in the tight box-cars, before described, is not injurious to the health or comfort of the people of said village; but, on the contrary, the route of the said railroad passes through portions of said village comparatively without population.

And the complainant would also show that there is no way in which the offal or animal matter received at their depots in the city of Chicago and at said Union Stock Yards can be transported to its factory without hauling or transporting the same into and through the village of Hyde Park; and there is no way in which said material can be hauled as aforesaid, except by way of the Pittsburgh and Fort Wayne Railroad, and there is no way in which said business can be carried on without violating said ordinance, nor can said ordinance be obeyed without the entire abandonment of complainant's business, and relinquishing all the rights conferred upon it by its charter.

26

The complainant would also show that said ordinance has been passed by the trustees of said village under color of law, and the same is not an honest and reasonable exercise of the police powers of said village, and was not passed for the purpose of protecting the health of the citizens; but, on the contrary, it is an unlawful attempt, under the pretense of police regulations, to prevent complainant from receiving any supply of material at its factory, and to take away from the complainant the privileges conferred by its charter, and for no other purpose whatever.

The complainant would also show that pursuant to the said unlawful combination and conspiracy between the said municipal corporation, and the president and trustees thereof, and divers persons to your orator unknown, the said president did, on the sixth day of January, 1873, address to General W. C. Cleland, assistant general superintendent of the Pittsburgh, Fort Wayne and Chicago Railroad, the following communication:

"SIR: By a resolution of the board of trustees of the village of Hyde Park, I am directed rigidly to enforce our ordinances relating to nuisances. Among the ordinances on this subject which I have ordered our police officers to enforce on and after to-morrow, I call your attention to the following, namely, chap. 1, sec. 7: 'No person shall transport, haul, or convey any offal, dead animals, or other offensive or unwholesome matter or material into or through the village of Hyde Park. Any person who shall be in charge of, or employed on any train or teams, carrying or conveying any such matter into or through the village of Hyde Park shall be subject to a fine of not less than five or more than fifty dollars for each offense.' We desire to occasion no inconvenience to said roads extending into or through our village, and so give you timely notice that Hyde Park will submit no longer to be the dumping-ground for the offal of Chicago.

27

"Yours, truly,

"C. M. CADY,
"*Pres. of the Board of Trustees.*"

ARRESTS.—And the complainant would further show unto your honor that said board of trustees and their said president, immediately upon the passage of the aforesaid ordinance and the sending of the aforesaid letter, caused said letter embracing said ordinance to be published in the Chicago papers, and combining and confederating with various parties to your orator unknown, caused the police of said

village of Hyde Park to be stationed at Ainsworth, near complainant's factory, with instructions to arrest under said ordinance any and all employees of your orator who should be found transporting offal by rail from their said depots in Chicago to their establishment at Ainsworth. And on or about the 8th day of January, 1873, while the engineer, conductor, and brakemen, five in number, were engaged in running the train of cars on said Pittsburgh, Ft. Wayne & Chicago R. R., and the side-track aforesaid from said railroad to the works of your orator at Ainsworth, which said train was conveying offal and
28 animal matter for your orator, for the purpose of being manufactured by them in manner aforesaid and under provisions of their charter, said police force actually arrested said employees, and forced them to leave their train upon the side-track aforesaid at Ainsworth, and brought them under arrest before a justice of the peace of the said village, about six miles distant from said train, for a pretended violation of said ordinances, and fined them $50.00 each. And the complainant would also show that said justice would not entertain a prayer for appeal from said judgment, but threatened to imprison said employe's at once unless said fine should be immediately paid. Whereupon, in order to enable said employees to take care of their said train, your orator paid said fines, in the aggregate amounting to $250.00.

The complainant would further show, that immediately upon the conclusion of the pretended trial, said police force were ordered back to the side-track of complainant, at Ainsworth, to arrest the employees upon the next train which should arrive.

THEIR EFFECT.—The complainant would further show, that it has permanent arrangements with Pittsburgh, Ft. Wayne and Chicago Railroad, by which it furnishes to said railroad the box-cars for the transportation of offal and blood from Chicago to orator's establishment at Ainsworth, and that said railroad company furnish engines, engineers, conductors, and brakemen for the hauling of said material; that your complainant has no more cars than is necessary for the transportation of the material constantly accumulating in its depots in the city, provided it is uninterrupted in its business; and that said railroad company will not furnish engines and cars if their men are constantly arrested
29 and their trains are to be left wherever the arrest may be made, and that the employees will not work upon said trains if said ordinance is enforced.

And the complainant avers that the said village of Hyde Park, through their said president and trustees, openly threaten to continue said arrests from day to day until they shall utterly break up and destroy its business, and, in public speeches and private conversation, said president and trustees openly avow and admit that such is their object and determination. And the complainant avers that such interference will break up his business, and it cannot carry it on and continue it unless said village and its officers desist or are restrained from making such arrests and persisting in such interference; and this complainant avers that he fears said village will persist in and continue said arrests and interference unless restrained and prevented by judicial authority. Said complainant also avers that if said interference is persisted in it will result in irremediable injury and mischief and damage to complainant, and in effect will work a confiscation of its property.

THE FIRE.—The complainant would further show unto your honor that its buildings at Ainsworth were recently destroyed by fire; that prior to said fire orator had in said establishment eight dryers; that the main portion of the drying-machinery, including the engines, were

saved, and by the end of first week in February it will have five dryers in operation, which will dry nearly as much material as the eight in operation before the fire; that it is now engaged in the construction of the buildings and additional dryers in lieu of those destroyed, and
30 is now substantially ready to commence the manufacture of fertilizing material the same as before the fire, and at the rate of seventy-five tons a day. Your orator would also show that said material remains frozen and is not offensive during the winter months, and with what your orators has done, and the additions to be made before the spring opens, it will be able to take care of the material the coming summer as well as in years past.

And your orator further shows unto your honor that its rights, privileges, and immunities hereinbefore set forth, appertain and belong to its shareholders as citizens of the United States, and that such rights, privileges, and immunities are guarantied to your orator and its shareholders by the Constitution of the United States and the laws thereof, and that the said defendants are, by the means hereinbefore set forth, attempting to deprive your orator and its shareholders of such rights, privileges, and immunities, under and by virtue of the pretense of the ordinance hereinbefore set forth, contrary to the Constitution of the United States and the laws thereof, and that by reason of the premises your orator is entitled to appropriate redress in the circuit court of the United States.

In consideration whereof, and inasmuch as your orator is remediless by the strict rules of the common law, and can only obtain relief in a court of equity, where matters of this nature are properly cognizable, said complainant prays that the village of Hyde Park, Chauncy M. Cady, a trustee, and the president of the board of trustees of said village of Hyde Park, and his associate trustees, W. E. Hale, A. D. Waldron, Lucius G. Fisher, E. G. Clark, M. Doyle, J. M. Barney, Lester Brad-
31 nor, junior, and H. Vanderbilt, and their confederates, may be made defendants hereto, and may be required to answer the same not under oath, (their answer and the answer of each of them under oath being hereby expressly waived,) and that said village of Hyde Park, and said trustees above named, their confederates, officers, and agents, and attorneys may be restrained by an injunction out of this honorable court from in any way or manner interfering with, arresting, hindering, or disturbing your orator, or any persons by it employed in carrying, hauling, or transporting by railroad or otherwise, any offal or animal matter from any of their depots aforesaid to Ainsworth, or the locality of their works above described, or to said works, or in manufacturing such material into an agricultural fertilizer, or other chemical products, or in any manner otherwise prosecuting the business of the said complainant under its act of incorporation, and that said defendants may stand to and abide by all such orders and decrees as your honors may make in the premises, and that your orator may have such other and further relief in the premises as may be agreeable to equity and good conscience.

And may it please your honors, also, to grant unto the complainant the writ of subpœna, to be directed to the village of Hyde Park, and to Chauncey M. Cady, W. E. Hale, A. D. Waldron, Lucius G. Fisher, E. G. Clark, M. Doyle, J. M. Barney, Lester Bradnor, junior, and H. Vanderbilt, trustees of the village of Hyde Park, commanding them, and each of them, on a certain day, and under certain penalties,
32 therein to be inserted, to be and appear before your honors, then and there to answer the bill of complaint, and further to stand to

and abide by such order and decree therein, as shall be agreeable to equity and good conscience. And may it please your honors to grant unto your orator the people's writ of injunction issuing out of, and under the seal of this court, directed to the said above-named trustees, their counsellors, officers, agents, and employees, commanding them and each of them absolutely to desist and refrain, as above prayed.

BENTLEY, SWETT & QUIGG,
BECKWITH, AYER & KALES,
Sol'rs for Complainant.

NORTHERN DISTRICT OF THE STATE OF ILLINOIS, *ss:*

ROBERT W. RALSTON, being first duly sworn, on his oath deposes and says that he is vice-president of the said complainant, the Northwestern Fertilizing Company, and hereto duly authorized; that he has heard read the foregoing bill of complaint, and knows the contents thereof, and that the same is true in substance and in fact, except such matters as are therein stated upon information and belief, and that those he believes to be true.

ROBERT W. RALSTON.

Subscribed and sworn to before me this thirtieth day of January, A. D. 1873.

[NOTARIAL SEAL.] WILLIAM W. THAYER,
Notary Public.

33 EXHIBIT A.

An act to incorporate the Northwestern Fertilizing Company.

SECTION 1. Be it enacted by the people of the State of Illinois, represented in the general assembly, that Christian Wahl, Louis Wahl, and John A. Lighthall, and their successors, associates and assigns, be, and they hereby are, constituted a body politic and corporate; to have continued succession and existence for the term of fifty years, and to be known as "The Northwestern Fertilizing Company," and, by that name and style, may contract and be contracted with; sue and be sued, as a natural person may; they may have and use a common seal; they shall have power in their corporate name, for the use of said corporation, to purchase and hold sufficient real estate for the free enjoyment of all privileges herein granted, and to make all proper by-laws and rules for the government of said corporation.

SEC. 2. The capital stock of said company shall be fifty thousand dollars, with power to increase the same to any sum not exceeding two hundred and fifty thousand dollars.

SEC. 3. The above-named persons, or a majority of them, may meet at any time after the passage of this act, and organize said company, on the stock therefor being subscribed for to the amount of fifty thousand dollars; and they may issue certificates and then hold an election for such officers as may be created by the by-laws which
34 may be hereafter enacted for the government of said company, which officers shall hold their offices for the length of time fixed by the said by-laws, to be enacted hereafter by the said company. Said by-laws may be changed, from time to time, as may be provided by said corporation, acting through its managers.

SEC. 4. Said corporation is hereby authorized and empowered to establish and maintain chemical and other works at the place designated herein, for the purpose of manufacturing and converting dead ani-

mals and other animal matter into an agricultural fertilizer, and into other chemical products, by means of chemical, mechanical, and other processes.

SEC. 5. Said chemical works shall be established in Cook County, Illinois, at any point south of the dividing-line between townships thirty-seven and thirty-eight. Said corporation may establish and maintain depots in the city of Chicago, in said county, for the purpose of receiving and carrying off, from and out of the said city, any and all offal, dead animals, and other animal matter, which they may buy or own, or which may be delivered to them by the city authorities and other persons.

SEC. 6. This act shall take effect and be in force from and after its passage.

Approved, March 8, 1867.

35 And thereupon afterwards, to wit, on the third day of February, A. D. 1873, said defendants, by their solicitors, filed in said cause their certain answer, in the words and figures following, to wit:

In the Cook County circuit court. In chancery.

STATE OF ILLINOIS,
County of Cook, ss :

THE NORTHWESTERN FERTILIZING COMPANY, complainant,
vs.
CHAUNCY M. CADY, WM. E. HALE, A. D. WALDRON, L. G. FISHER, E. G. CLARK, MICHAEL DOYLE, J. F. BARNEY, L. BRADNER, jr., and H. VANDERBELT, trustees of the village of Hyde Park, defendants.
} Bill for injunction.

The joint answers of Chauncy M. Cady, William E. Hale, L. G. Fisher, E. G. Clark, L. Bradner, jr., and H. Vanderbelt, sued as trustees of the village of Hyde Park, defendants.

These defendants, now and at all times hereafter saving and reserving all and every benefit or advantage of exception which can or may be had or taken to the many errors, uncertainties, and imperfections in said bill of complaint contained, and protesting that for anything in said bill of complaint contained or alleged this court ought not to have or maintain jurisdiction in said cause and these defendants ought not to be required to answer thereunto, for answer thereunto, or to so much thereof as they are advised it is material for them to answer, say:

Defendants admit that complainant, by an act of the legislature
36 of the State of Illinois approved March 8, 1867, received a charter, a copy of which is herewith filed, marked "Exhibit A," and that complainant has since been claiming to act under and by virtue of said charter or an act of incorporation as a body-politic.

Defendants, further answering, say they have no knowledge, information, or belief as to whether or not the capital stock of complainant was subscribed to the amount of $50,000 or any other sum and paid up, or whether said capital stock was afterwards increased to $250,000 or to any other sum, and the capital paid in as in said bill of complaint

alleged, nor as to the organization of said company, beyond the fact that said company has been doing business in the town of Hyde Park, and afterwards in the village of Hyde Park, under the name stated in said bill of complaint.

Defendants, further answering, deny that said act of the legislature designated any point or place for the location of the business of said complainant, but defendants charge the truth to be that said act merely limited the location of works by complainant to any point within the county of Cook, south of the north line of township thirty-seven.

Defendants, further answering, admit that some time in the year 1868 complainant entered into the occupancy of buildings and grounds at or near a station known as Ainsworth, on the Pittsburg and Fort Wayne and Chicago Railroad, which buildings and grounds had been previously used, and were then being used, in the same business afterwards carried on by complainant; but defendants say they have no knowledge, information, or belief as to the amount of capital expended by complainant in improving and enlarging such works, or whether said complainant purchased any large tract or tracts of land or to what extent said complainant constructed buildings.

37 Defendants, further answering, deny that the station known as Ainsworth was designated as the place at which complainant's works should be located by the terms of the act of the legislature aforesaid, and defendants deny that the said complainant located its said works within the town of Calumet, but charge the truth to be that at the time of the alleged organization of said complainant's company, and at the time of the approval of said act of incorporation, the territorial limits of the then town and now village of Hyde Park included therein the said station of Ainsworth and the grounds and buildings in and upon which said complainant has conducted its manufacturing business from the date of the approval of the act of incorporation aforesaid hitherto, and that the territorial limits of the town, and now village, of Hyde Park have not been extended or changed since the date of the approval of complainant's said act of incorporation.

Defendants, further answering, say they have no knowledge, information, or belief as to whether complainant expended the sum of $200,000 and other large sums in equipping and constructing its said works and building and side-track, and purchasing box-cars, etc., about its said business and in preparation therefor, or what sum or sums said complainant expended in establishing depots in Chicago and in the town of Lake, as alleged in said bill of complaint, or for the purchasing of land in the town of Lake, or what, if any, contracts complainant may have made and entered into with the packers engaged in slaughtering and packing animals in said city of Chicago, or whether such contracts are now in force, as in said bill alleged; but defendants charge that whatever expenditures of money and whatever contracts were made by complainant were made with full notice to complainant of the requirements and obligations of the ordinances of the town of Hyde Park and its successor, the village of Hyde Park,

38 and of the police and sanitary powers conferred upon the town of Hyde Park, and afterwards upon the village of Hyde Park as its successor; that by an act of the legislature of the State of Illinois, entitled "An act to revise the charter of the town of Hyde Park, in Cook County," approved March 26th, 1869, giving full sanitary and police powers to the officers of said town, in the 16th clause of the 18th section of said act, the following proviso was inserted, to wit: "Provided, however, That the sanitary and police powers conferred by this

act shall not be exercised by said board of trustees as against the North western Fertilizing Company or the Union Rendering Company, located at or near the Calumet River, in said town, until the full expiration of two years after the passage of this act."

That pursuant to the powers and under the authority conferred by the said last-mentioned act, the board of trustees of said town did, on the 14th day of Febuary, A. D. 1870, adopt an ordinance, of which the following is a copy of the 15th section thereof, to wit:

"SEC. 15. All breweries, tanneries, packing-houses, distilleries, slaughter-houses, butcher-shops, stock-yards, or establishments for the steaming or rendering of lard, tallow, offal, or such other substances as can or may be rendered, boiled, or steamed, and all establishments or places where any nauseous, offensive, unwholesome, or immoral business may be carried on, are hereby severally defined and declared to be nuisances; and any person who shall own or keep or use any such places so declared to be nuisances, *and any person who shall own or keep or use any of such places so declared to be nuisances*, shall be deemed the author of a nuisance, and on conviction thereof shall be subject to a fine not exceeding one hundred dollars, and not less than ten dollars, in every case, and to a like fine for every day he or she shall fail or refuse to abate such nuisance when notified by an officer
39 or trustee to abate the same." And of the 16th section thereof, to wit: "Any owner or occupant of any shop, barn, grocery, cellar, outhouse, yard, or other place, who shall suffer the same to become nauseous, foul, or offensive, shall be fined in a sum not less than five dollars and not exceeding twenty-five dollars in every case, and in like sum for each and every day after notice to cleanse such places." And of the 17th section thereof, to wit: "Any person who shall deposit any night-soil, dead animals, manure, or other filthy, offensive, or nauseous substances upon any lot, street, alley, highway, or other place in the town, shall be fined in a sum not less than fifty and not exceeding one hundred dollars in every case," which ordinance was in full force and effect in the said town of Hyde Park, from and after its adoption by said board of trustees of the village of Hyde Park, November 29th, 1872, and was only limited in its application to complainant by the proviso in said act of March 26th, 1869, above recited; that on the 29th day of November, A. D. 1872, an ordinance was adopted by the president and board of trustees of the village of Hyde Park, pursuant to the 75th, 78th, 83d, and 96th clauses of article V of an act entitled "An act to provide for the incorporation of cities and villages," approved April 10th, 1872, of the Laws of the State of Illinois, and in pursuance of which act, and by virtue thereof, the village of Hyde Park had succeeded to and become vested with all the rights, duties, powers, franchises, and privileges of the said town of Hyde Park, and the powers, privileges, and franchises conferred by said last-mentioned act, which ordinance so adopted as aforesaid contained the following sections, to wit: Chapter 11, sec. 2: "All places or premises within the village of Hyde Park kept, occupied, used for the purpose of steaming, boiling, or rendering in any manner of any offal, tainted or damaged lard or tallow,
40 or the steaming or rendering of any animal substances, where the same is or may be kept, occupied, or used in such manner as to occasion any offensive smell, or to so taint the air as to render it unwholesome or offensive to the smell, and all places where any nauseous, offensive, or unwholesome business may be carried on, are hereby severally declared to be nuisances. And any person or persons who shall own, keep, occupy, or use any such place or premises in such manner as

to occasion any offensive smell, or to so taint the air as to render it unwholesome or offensive to the smell, shall, on conviction, be subject to a fine of not less than fifty dollars, nor more than two hundred dollars, in every case, and to a like fine for every day he, she, or they shall continue to suffer such nuisance to continue after the first conviction, or after being notified by any officer or policeman of the village of Hyde Park to abate the same;" and of section 3 of same chapter, as follows: "Any person or persons who shall own, use, or occupy any packing, house, rendering-establishment, tallow-chandlery, bone-factory, soap-factory, or tannery, who shall cause or suffer any offal, filth, refuse, foul or nauseous liquor, or other offensive matter to be discharged out of or flow from any such premises into Lake Michigan, or into any lake lying in whole or in part within the village of Hyde Park, or the Calumet River or either of the branches thereof, or any of the slips or canals connected therewith, or into any slough within the jurisdiction of the said village, or in or upon any street, alley, public square, vacant lot, wharf, dock, river-bank, or lake-shore, shall be subject to a fine of not less than twenty-five dollars, and not exceeding two hundred dollars, for each offense;" and section 4 of same chapter as follows: "Any person or persons who shall permit or suffer any offal, filth, refuse animal or vegetable matter, which is liable to become putrid or offensive, or injurious to health, to remain on any
41 premises, used or occupied by him, for a longer period than four hours at any one time, shall be subject to a fine of not less than three dollars, and not more than two hundred dollars, for each day the same shall be allowed to remain after a conviction for the first offense;" and sect on 6 of the same chapter, as follows: "All buildings, yards, grounds, premises, and places of any and all description in the village of Hyde Park kept or suffered in a foul, offensive, nauseous, or filthy condition, are hereby declared to be nuisances, and any person who own or keep or use any of such places so declared to be nuisances shall be deemed to be the author of a nuisance, and on conviction thereof shall be subject to a fine not exceeding two hundred dollars, and not less than five dollars, and to a like fine for every day he, she, or they shall fail or refuse to abate such nuisance when notified by an officer or policeman of the village of Hyde Park to abate the same;" and section 7 of the same chapter, as follows, to wit: "No person shall transfer, carry, haul, or convey any offal, dead animals, or other offensive or unwholesome matter or material into or through the village of Hyde Park. Any person who shall be in charge of or employed upon any train or team carrying or conveying such matter or material into or through the village of Hyde Park shall be subject to a fine of not less than five dollars nor more than fifty dollars for each offense;" and section eight of same chapter, as follows, to wit: "No person shall establish, maintain, or carry any offensive or unwholesome business or establishment within the limits of the village of Hyde Park, nor within one mile of the limits thereof. Any person who shall violate any of the provisions of this section shall be subject to a penalty of not less than fifty nor more than two hundred dollars for each and every offense, and to a like fine for each day such business or establishment shall be continued after the first
42 conviction;" and section nine of the same chapter, as follows, to wit: "The depositing of any night-soil, dead animals, manure, or other filthy, offensive, or nauseous substances upon any lot, street, alley, highway, or other place in the village, is hereby declared to be a nuisance, any any person convicted thereof shall be fined not less than three dollars, nor exceeding twenty dollars;" and section ten of the same chapter,

as follows, to wit: "Whenever any nuisance shall be found on any premises within the village, contrary to any ordinance of said village, the president of the board of trustees is hereby authorized in his discretion to cause the same to be summarily abated, in such manner as he may direct."

And defendants, further answering, say that the town of Hyde Park, in pursuance of the act of the legislature of the State of Illinois last above mentioned, did, on the 13th day of August, A. D. 1872, become incorporated and known as the village of Hyde Park.

Defendants, further answering, say that it is not true, as alleged in complainant's bill of complaint, that by the act of incorporation of said Northwestern Fertilizing Company the privilege of receiving offal and animal matter from the packing-establishments of the city of Chicago at the depots of complainant, and transporting the same to the place where complainant's works were located in said village of Hyde Park in the manner in which complainant is and has been conducting such transportation, is expressly conferred by said act of incorporation, but charge the truth to be that complainant, through its greed for profits, has used open box-cars, allowed said animal m tter, etc., to become putrid before removal, and has provided insufficient places for its reception at complainant's said works, has not provided sufficient machinery and means for the immediate disposition and manufacture of
43 said animal matter and offal, but suffered the same to accumulate at times in large quantities, and since the first day of January, A. D. 1873, has had no works or machinery whatever for the manufacturing into fertilizing or other chemical products, or otherwise any of the animal matter, tank-stuff, and offal received and transported to said complainant's grounds in said village of Hyde Park; that complainant is now daily dumping said offal, tank-stuff, and animal matter on the ground or into open bins so carelessly constructed as not to retain the blood emptied into them, but the same escapes and leaks upon the ground, and the large masses of animal matter accumulated is putrifying and decaying, becoming more and more offensive, and tainting and corrupting the air to an extent that the health of the inhabitants of said village is endangered, and the atmosphere of said village rendered thereby nauseous and disagreeable to the inhabitants throughout a large portion of the territory of said village, and a continuous and intolerable nuisance thereby created and maintained. That Ainsworth Station aforesaid, where complainant's works have heretofore been located, and where said complainant proposes to rebuild and continue the same, is five miles north of the south line of said village and late town of Hyde Park, and by that much nearer the centre of population than said south line; that the portion of Cook County lying south of the dividing-line between townships thirty-seven and thirty-eight constitutes a very large and extended territory, embracing more than nine townships, viz, Bloom, Thornton, Calumet, Worth, Palos, Lamont, Bremen, Orland, Rich, and the south part of Dower's Grove, and most of which territory was at the time of the approval of said complainant's charter, and has since continued to be, and now is, sparsely inhabited, and is largely accessible by railway communication with Chicago and the slaughtering and packing districts therein and in its
44 vicinity; that said territory did and still does afford many convenient and eligible locations for complainant's work remote from population, and where no nuisances dangerous to human health and life would result from a proper exercise of complainant's franchises, and where complainant ought to locate its works, rather than in the immediate vicinity of a populous district as it has done.

That the Union Rendering Company, formerly located at Ainsworth aforesaid, and adjoining complainant, and whose business created at Ainsworth a nuisance similar to the works of complainant, have recently (but not until after conviction in the criminal court of Cook County on indictment for public nuisance) removed to a point about nine miles south of Ainsworth to a site on the Calumet River, in the said town of Thornton, perfectly eligible and suitable for the works of complainant, and where, as these defendants are informed and believe, said Rendering Company are willing and desirous complainant should locate, and the assent of town authorities of said town of Thornton to said location can be obtained, as such assent has already been given to said Rendering Company.

Defendants, further answering, deny that complainant acquired any legal or equitable rights to subvert or disregard the ordinances of the village of Hyde Park, by reason of the police and sanitary ordinances of the city of Chicago, or by reason of the arrangements or contracts of complainant with said town of Lake.

Defendants, further answering, admit that the daily accumulations of dead animals and animal matter in the city of Chicago is immense, and that the conservation of the health of said city requires the rapid removal or proper disposition of such dead animals and animal matter, lest pestilence should be bred therefrom, and defendants aver that
45 the amounts of such offal and offensive matter is so enormous that it is impossible for complainant or any other company with any facilities it has heretofore possessed, and which it proposes to re-establish, to work the same up at any one place fast enough to prevent an accumulation of an immense mass of putrid matter, thus poisoning the air in the vicinity, and creating a foul nuisance for miles around; that since its organization said complainant has, year by year, for purposes of greed and of a monopoly of the profits of the business, undertaken to dispose of such amounts of offal and so far beyond the capacity of its works; that large amounts thereof have been accumulated by complainant at its works at Ainsworth, during each packing season, (and which season usually lasts from some time in the month of November in each year till the first of March following,) and such offensive matter has been suffered to lie and fester, and rot and stink, till late in the season of hot weather, and sometimes till nearly the commencement of the next packing season.

That said complainant is now accumulating at said Ainsworth immense masses of this offensive matter, and with its works destroyed and the delay in rebuilding, the prospect for the coming warm season (unless some check is put to this disregard of human life and health) is most serious, calling for prompt and immediate action on the part of the authorities of said village of Hyde Park, in order to prevent pestilence among its population. And defendants aver that complainant has heretofore, and unless checked by legal proceedings will continue to conduct its business at Ainsworth in a most careless, slovenly, and reckless manner, spreading large amounts of putrid matter in the open air to dry, thus facilitating and assisting the process of drying by its dryers, and in
46 other respects conducting its business in such a careless and reckless manner as to create a foul and dangerous nuisance, and it is to prevent this that the authorities of said village of Hyde Park have commenced a series of criminal prosecutions; and defendants submit that they should be permitted to continue the good work until the lives and health of the citizens of Hyde Park are made reasonably secure; and defendants say that the sheds or inclosures in which com-

plainant pretends it has been and is now confining this offensive matter are and have been loosely built, and wholly inadequate to confine these offensive smells and prevent a great nuisance; nor is it possible to so construct them as to prevent such an immense mass of accumulated putrid matter from becoming a great nuisance. Defendants submit that they are not responsible for, or in any way bound to provide an outlet or place of deposit for such dead animals, animal matter, and offal, as may accumulate in said city of Chicago and its vicinity, or to furnish complainant with any facilities for doing the same; and defendants further deny that complainant has the right to violate the police and sanitary ordinances of the village of Hyde Park, by reason of any lack or negligence on the part of the city of Chicago or its citizens in providing proper means and places for the removal to and disposition of such accumulations of dead animals, animal matter, and offal. Defendants, further answering, admit that complainant has heretofore daily removed the materials collected at its depots to its works in the village of Hyde Park, and converted the same or a large portion thereof into fertilizing material, has shipped such manufacturers' material to various places, acquired reputation for such manufacture and derived large profits from such business, but defendants deny that said complainant's works are now in operation, and further deny that complainant is now engaged in the manufacture of such material into a fertilizer or any product whatever Defendants further deny that said complainant has
47 heretofore, or is now, transporting said animal matter and offal in such way and manner as to occasion as little as possible offense consistent with the business to the inhabitants of the village of Hyde Park living on the line or using the route of transportation for such material, and deny that said complainant is now receiving such matter at its manufactory in such manner as to avoid as far as possible any deleterious influence therefrom; and deny that complainant has heretofore used, or that complainant is now using, proper means to render said transportation and manufacture of said material innoxious and inoffensive to the inhabitants of the said village of Hyde Park; and defendants deny that complainant has heretofore used, or is now using, all possible means to render such transportation and manufacture innoxious and free from annoyance to the inhabitants of said village of Hyde Park. Defendants deny that said complainant has heretofore, in the conduct of its business, used, or now uses, the necessary care and means to prevent said business from being annoying and noxious to the inhabitants of the village of Hyde Park; and defendants deny that complainant has availed itself of every known discovery to prevent annoyance and deleterious influences to the inhabitants of said village of Hyde Park from the business of complainant. And these defendants aver that there are in use, and have been for years past, in many cities of Europe (as these defendants are informed and believe) and elsewhere, well-known processes for manufacturing animal matter into a fertilizing material without the production of offensive odors, and that such processes are not used by said complainant, and because the same are more costly than it chooses to employ.

Defendants charge the truth to be that the works of said complainant have heretofore been located in close proximity to the main track
48 of the Pittsburgh, Fort Wayne, and Chicago and Michigan Southern Railroads, which are great through lines for travel between Chicago and all eastern points—within three miles of the track of the Illinois Central and Michigan Central Railroad; that thousands of persons daily pass on said railroads; that several new lines of rail-

roads are projected at or near the place where said works have heretofore been located; that the population of the village of Hyde Park is rapidly increasing; and in the immediate vicinity of said works there is now a population of about 700 persons, and that such population would be still more largely increased but for the nauseous and disgusting effluvia exhaled from the putrifying animal matter uncared for at the location of complainant's said works, and from the horrible stench produced by the manufactory of said complainant, when in operation, corrupting the air and rendering it foul and offensive for miles about said works; that the offal and animal matter accumulated by complainant are transported in open box-cars; that said matter, at the time of transportation, is often putrid and decaying, giving out unwholesome and noxious odors, incommoding and offending persons traveling upon the railroads and living along the line of said railroads over which said matter is thus transported; that said location of complainant's works is at or near all the lines of railroads leading into Chicago from the eastern portion of our county, and within a few rods of the highway leading from Chicago to the State of Indiana.

Defendants, further answering, say they have no knowledge, information, or belief as to the use said complainant may have made of its grounds in the town of Lake, but submit that the accumulated matter alleged by complainant to have been deposited in said town of Lake cannot be deposited in the village of Hyde Park to putrify and
49 decay without great danger to the health of the inhabitants of said village, as well as to their great discomfort.

Defendants, further answering, deny that the right to carry on the business of complainant in the manner in which complainant is now conducting the same has been several times decided in favor of complainant in the criminal court of Cook County, or has ever been so decided on indictment or otherwise.

Defendants, further answering, say they have no knowledge, information, or belief respecting the alleged contracts of said complainant; but defendants aver that complainant has no means whatever provided for the manufacture of said animal matter within the village of Hyde Park, and defendants charge the truth to be that said complainant's said charter does not exempt said complainant from obedience to and compliance with the ordinances of said village of Hyde Park, and that the police and sanitary powers of said village extend to and include thereunder said complainant as well as citizens of said village.

Defendants, further answering, say that said village of Hyde Park became incorporated under the general laws of the State of Illinois, passed since the act incorporating complainant, but charge the truth to be that the legislature of the State of Illinois has clothed the officers of the village of Hyde Park with full powers to control and regulate all sanitary and police matters within said village. Said defendants deny that they have attempted to interfere with the lawful conduct of said complainant's business, but have, as officers of said village, adopted ordinances and required the enforcement thereof, which defendants believed and still believe were proper and necessary for the conservation of the health and good order of said village, and defendants
50 deny that they have sought in any way to use their corporate powers to the injury of complainant, except in so far as complainant has openly and notoriously violated the ordinances of said village, alleging and claiming that it, said complainant, was in no way or manner amenable to the police and sanitary authority of said village, and exempt, by its charter, from all control by the officers of said

village from all duty to obey the ordinances thereof. Defendants expressly deny that such exemption is either expressly or impliedly granted said complainant by its said act of incorporation, and deny that in the passage of said act of incorporation the legislature of the State of Illinois surrendered or intended to surrender to complainant the police and sanitary powers of said State. Defendants admit the adoption of the section of the ordinances recited in said bill of complaint with other sections, but deny that the authorities of said village have threatened to or attempted to interfere with complainant in the transportation of any matter, in a lawful or careful manner, through said village, and charge that said ordinances are necessary for the protection of the lives and health of the inhabitants of said village, and a proper exercise of the powers conferred by the statutes of the State of Illinois upon the president and board of trustees of said village, and defendants submit that unless the power to prevent the dumping of offal and animal matter within said village be exercised by the officers of said village, that the amount of such matter to be deposited, as shown by complainant's bill, would soon render the occupation of said village, and even of a great portion of the city of Chicago, adjoining said village, unfit for occupancy by any human inhabitants.

Defendants, further answering, deny that said recited ordinance, or any other ordinances of the village of Hyde Park, is in derogation of the rights and privileges of complainant under said act of incorporation, and further deny that said complainant has acquired any rights to violate or disregard the regulations and ordinances of said village by virtue of its said charter, but defendants submit that the rights, privileges, and franchises conferred by the act of incorporation upon complainant are no other or greater than exist by common law in every other inhabitant of the State of Illinois, and that said chartered and individual rights in no way derogate from the power of the State to confer upon municipal corporations the necessary sanitary and police powers for the good government of the same.

51

Defendants, further answering, deny all manner of combination to injure in any way said complainant or its business, but defendants admit that the police of said village have arrested certain men who were engaged in dumping offal and animal matter from a train of cars, on or about the 6th day of January, A. D. 1873, upon grounds in said village; that said men confessed to the violation of the ordinance of said village and were fined by the magistrate for such violation, but defendants deny that said men applied for or were refused an appeal by the magistrate, and submit that these defendants have no control over any magistrate in said village or elsewhere, to compel such magistrate to perform his duty, but that the law of the land gives ample redress to any person who may deem himself ag'rieved by the action of such magistrate.

Defendants, further answering, admit the service of the notice upon Gen'l W. C. Clelland, an officer of the Pittsburgh, Fort Wayne & Chicago Railroad, as stated in said bill, and claim that such notice was designed solely for the purpose of arresting the dumping and depositing of offal and animal matter within the limits of the village of Hyde Park, where no arrangements whatever existed for guarding or covering the same in any manner, or for making any use of the same, and the accumulations thereof threatened to be so great as to render any disposition of the same impracticable before the effluvia and odors therefrom would render life in said village almost intolerable as well as perilous to health.

52

Defendants, further answering, say that they are informed and believe

that the Union Stock Yards, at which place complainant alleges it has a depot established for the reception of its offal and animal matter, is connected with all the lines of railroad which come into the city of Chicago; that some of said roads run through large tracts of almost uninhabited country where said offal and animal matter could be deposited with little danger or inconvenience to men, and within easy transportation from said city of Chicago. That the Union Rendering Company is in full operation some nine miles south of the late site of complainant's works, and the managers thereof would, as defendants are informed and believe, receive and make disposition of said tank-stuff, offal, and animal matter.

And these defendants submit to this honorable court, that all and every of the matters in said complainant's bill mentioned and complained of are matters which may be tried and determined at law, and with respect to which the said complainant is not entitled to any relief from a court of equity, and these defendants hope they shall have the same benefit of this defense as if they had demurred to said complainant's bill of complaint. And these defendants deny all and all manner of unlawful combination and confederacy wherewith they are by said bill charged, without this, that there any other matter, cause or thing in said bill of complaint contained material or necessary for these defendants to make answer unto, and not herein and hereby well and sufficiently answered, confessed, traversed, and avoided, or denied, is true to the
53 knowledge or belief of these defendants or any of them. All of which matters and things these defendants are ready and willing to aver, maintain, and prove as your honors shall direct, and humbly pray to be hence dismissed with their reasonable costs, etc.

(Signed) CHAUNCEY M. CADY,
President of the Board of Trustees.
E. G. CLARK.
H. VANDERBELT.
WM. E. HALE.
L. G. FISHER.
L. BRADNER, JR.

Sworn to before

HENRY M. BAERN,
Notary Public.

(Attached is "The act to incorporate the Northwestern Fertilizing Company.")

And thereupon, afterwards, the following proceedings were had and entered of record in said cause, to wit:

THE NORTHWESTERN FERTILIZING CO. }
v. } Bill.
C. M. CADY ET AL. }

This day, Feb. 3, 1873, came on to be heard the motion of the defendants for a dissolution of the injunction heretofore granted in said cause, which was argued by counsel; and the court, not being fully advised in the premises, doth take said motion under advisement.

And this day, Feb. 12, 1873, came again the said parties, by their respective solicitors; and the court, having carefully considered the motion of the defendants for a dissolution of the injunction heretofore granted in said cause, and being now fully advised in the premises, doth overrule said motion of the defendants.

54 THE NORTHWESTERN FERTILIZING CO.
v.
C. M. CADY, W. E. HALE, A. D. WALDRON, L. G. Fisher, E. G. Clark, M. Doyle, J. T. Barney, L. Bradner, Jr., and H. Vanderbilt, trustees of the village of Hyde Park, and village of Hyde Park. } Bill.

On motion of solicitors for defendants, leave is hereby granted said defendants to file a supplemental answer in said cause instanter, which answer was filed and is as follows, to wit:

Circuit court of Cook County.

THE NORTHWESTERN FERTILIZING CO.
v.
CHAUNCEY M. CADY, WILLIAM E. HALE, L. G. Fisher, E. G. Clark, L. Bradner, jr., H. Vanderbilt, A. D. Waldron, Michael Doyle, and J. F. Barney, trustees of the village of Hyde Park, and the village of Hyde Park. } Bill for injunction.

And the defendants, Chauncey M. Cady, William E. Hale, L. G. Fisher, E. G. Clark, L. Bradner, jr., H. Vanderbilt, A. D. Waldron, Michael Doyle, and J. F. Barney, trustees of the village of Hyde Park, now come, and by leave of the court, for supplemental answer to the bill for injunction in this cause filed, say that on the 13th day of February, 1873, last past, and after the filing of defendants' answer in this cause, the following amendments were duly made to chapter 2 of the Revised Ordinances of the Village of Hyde Park:

55 Be it ordained by the president and board of trustees of the village of Hyde Park, as follows, to wit:

SECTION 11. All establishments, places, or premises within the village of Hyde Park so negligently conducted, managed, or used as to create such offensive smells as to taint the air and render it unwholesome or disagreeable to the public, or to the inhabitants of said village, are hereby severally declared to be a nuisance, and every person or corporation who shall create or aid or assist in creating such nuisance, shall be liable to a fine of not less than $50 and not exceeding $200, and to a like fine for each twenty-four hours such nuisance shall be continued and remain unabated.

SEC. 12. Any person or corporation engaged in the business of converting dead animals or other animal matter into an agricultural fertilizer, or into other products within the limits of said village of Hyde Park, and who or which shall so negligently conduct, or manage, or aid or assist in so conducting or managing such business as to create such nuisance as is described in section 11 of this ordinance, shall be liable to a fine of not less than fifty and not exceeding two hundred dollars, and to a like fine for each twenty-four hours such business shall be in such manner continued by the procurement, aid, or assistance of such person or corporation.

SEC. 13. No person or persons, or corporation, engaged in rendering, reducing, or manufacturing animal matter or offal into an agricultural fertilizer or other product, shall accumulate at any one place within the jurisdiction of said village, matter or offal exceeding one hundred tons or of blood exceeding one thousand gallons. Any person or corporation who or which shall violate this section shall be deemed guilty of

maintaining a nuisance, and, upon conviction thereof, shall be
56 . fined in a sum not less than fifty and not more than two hundred dollars.

SEC. 14. Any person or persons who, or corporation which, shall cause animal matter or offal to be brought into the village of Hyde Park for the purpose of manufacturing the same into a fertilizer or other product, or who shall aid or assist therein, shall transport the same in close, tight, and covered cars or boxes, and shall deposit the same in close, tight, and covered bins, so that no offensive or unwholesome odor shall escape therefrom. Any person who shall violate this section shall be subject to a fine of not less than fifty and not more than two hundred dollars for each offense.

SEC. 15. Any person or persons, or corporations, engaged in rendering, reducing, or manufacturing animal matter or offal into a fertilizer or other product, who or which shall deposit within the limits of Hyde Park any such matter or offal in a putrid or offensive condition, or who or which shall aid or assist therein, shall be deemed guilty of creating a nuisance, and, upon conviction thereof, shall be fined in a sum not less than $50 and not more than $200.

SEC. 16. Any person or persons, or corporation, engaged in rendering, reducing, or manufacturing animal matter or offal into a fertilizer or other product, who or which shall permit or suffer any animal matter or offal to remain on premises occupied or used by him, or them, or it, within the limits of the village of Hyde Park for a longer period than 48 hours before the actual reduction or manufacture thereof, shall be deemed guilty of maintaining a nuisance, and, on conviction thereof, shall be subject to a fine of not less than $50 and not exceeding $200, and to a like fine for every day he, she, or they shall fail to abate such nuisance.

57 SEC. 17. Every person or corporation engaged in manufacturing animal matter or offal into a fertilizer or other product within the limits of the village of Hyde Park shall, before the reduction thereof, thoroughly deodorize the same by the application of salt, acid, or other chemicals, so that the same shall not be offensive. Any person who shall violate this section of the ordinance shall be subject to a fine of not less than $50 and not more than $200.

SEC. 18. Any person or corporation who or which shall operate or use, or be employed in any factory or other place for the reduction, rendering, or manufacturing of animal matter or offal into a fertilizer or other product between the 1st day of April and the 1st day of November, within the limits of the village of Hyde Park, shall be guilty of maintaining a nuisance, and, on conviction thereof, shall be subject to a fine of not less than $50 and not more than $200, and to a like fine for every day he, she, or they shall fail to abate such nuisance.

SEC. 19. Nothing contained in this ordinance shall be construed so as to repeal any existing ordinance of the village of Hyde Park relating to nuisances or the abatement thereof.

All which matters and things these defendants are ready and willing to aver, maintain, and prove, as this honorable court shall direct; and humbly pray to be hence dismissed, with their reasonable costs and charges in this behalf most wrongfully sustained.

HITCHCOCK, DUPEE & EVARTS,
AND SIDNEY SMITH,
Defendants' Sol'rs.

But said supplemental answer not to affect the injunction heretofore allowed.

58 And after hearing counsel for the respective parties, the hearing of motion filed by defendants to modify the injunction in the papers now filed by defendants, and upon such papers as may in opposition thereto be filed by complainant, is set for March 6th next.

And thereupon afterwards, to wit, on the sixth and nineteenth days of March, A. D. 1873, the following proceedings were had and entered of record in said cause, to wit:

THE NORTHWESTERN FERTILIZING CO. v. C. M. CADY ET AL. } Bill.

This day came the complainants by Leonard Swett, esq., one of their solicitors, and the defendants by Messrs. Hitchcock & Smith, their solicitors; and thereupon came on to be heard the motion of the defendants for the modification of the injunction heretofore granted in said cause, which was heard on bill, answer, affidavits, and on certain affidavits filed in the case of Gaughan v. The Northwestern Fertilizing Company, and read pursuant to stipulation. The court after hearing the argument of counsel, and not being now fully advised in the premises, doth take said motion under advisement.

THE NORTHWESTERN FERTILIZING COMPANY v. C. M. CADY ET AL. } 5545 857. Bill.

This day came again the said parties by their respective solicitors. And thereupon the court having now on this day carefully considered the motion of said defendants heretofore made in said cause, and being now fully advised in the premises, doth overrule the motion of said defendants, to wit, to modify the injunction heretofore granted in said cause.

And on motion and by agreement of counsel, it is ordered that
59 the order heretofore entered setting said cause for hearing for the 21th day of March next, be, and it hereby is, set aside.

And that said cause be, and it hereby is, set for hearing for the 26th day of March, instant.

And afterwards, to wit, on the 1st and 4th days of April, A. D. 1873, the following among other proceedings were had and entered of record in said court, to wit:

THE NORTHWESTERN FERTILIZING COMPANY vs. C. M. CADY, W. E. HALE, A. D. WALDRON, L. G. Fisher, E. G. Clark, M. Doyle, J. F. Barney, L. Bradner, jr., and H. Vanderbelt, trustees of the village of Hyde Park, and Village of Hyde Park. } Bill.

On motion and by consent of counsel, leave is hereby granted said defendants C. M. Cady, William E. Hale, L. G. Fisher, E. G. Clark, L. Bradner, jr., and H. Vanderbelt, part of the above-named defendants, to amend their answer filed January 30th, 1873, instanter.

THE NORTHWESTERN FERTILIZING COMPANY
vs.
C. M. CADY, W. E. HALE, A. D. WALDRON, L. G. Fisher, E. G. Clark, M. Doyle, J. T. Barney, L. Bradner, jr., and H. Vanderbelt, trustees of the village of Hyde Park, and Village of Hyde Park. } 5545 857. Bill.

60 This day came said parties by their respective solicitors, and thereupon this cause came on to be heard upon the bill, answers, and proofs adduced in open court. The court, after hearing the evidence and arguments of counsel, and being fully advised in the premises, doth find that the complainant is not entitled to the relief prayed for in its said bill of complaint.

Whereupon it is ordered by the court that the complainant's bill of complaint be, and it hereby is, dismissed out of this court, at complainant's costs, for want of equity.

To all of which the complainant, by its solicitors now here, excepts, and prays an appeal to the supreme court of the State of Illinois, which is granted on condition that said complainant doth within twenty days from date execute and file an appeal-bond in said cause, in the penal sum of five thousand dollars, ($5,000,) with security thereto, to be approved by the court.

And it is further ordered that said complainant be allowed thirty days from date in which to prepare and file a certificate of evidence in said cause.

It is hereby stipulated that all the conditions of the appeal have been complied with, and that this case is now in accordance with said order of appeal properly before the supreme court for the northern grand division of Illinois.

It is also stipulated that the following bill of exceptions is a full statement of the evidence taken in said cause, the same having been condensed as follows by the agreement of the parties.

LEONARD SWETT,
Sol. for Complt.
CHAS. HITCHCOCK,
Sol. for Defts.

61 Circuit court, Cook County, March term, A. D. 1873.

STATE OF ILLINOIS,
Cook County:

NORTHWESTERN FERTILIZING CO.
v.
C. M. CADY ET AL. } Bill of exceptions.

Be it remembered that on the trial of this cause, at the March term of 1873, of the circuit court of Cook County, honorable W. W. Farwell, presiding as the judge of the said court, the plaintiff, to maintain the issue upon his part, introduced the following testimony:

LOUIS WAHL:

I am a manufacturer of glue from the refuse of hides and the feet and bones of animals, and have been thus engaged, in Chicago and at Milwaukee, for the last twenty-seven years. Our firm, composed of

Christian Wahl, myself, and John A. Lightall, commenced to manufacture an agricultural fertilizer from offal and animal matter in the city of Chicago in 1864.

The establishment was about four miles from the court-house in a southwesterly direction.

In the fall of 1866 we moved the business to Ainsworth, which is in a southeasterly direction from Chicago, and about thirteen miles distant. The location is about half a mile from the mouth of the Calumet River.

At the time Wahl Brothers and Lightall commenced the fertilizing business at Ainsworth, that country, in the main, was unsettled. Between the Hyde Park Hotel and the factory there was one little saloon called The Half-way House. This was the only house,
62 and was about two miles south of the present Hyde Park Hotel.

There was also a little hut at Clark's Point, and an old house at the Calumet light-house, and also another house belonging to a man by the name of Cain; otherwise there were no settlements from the Hyde Park Hotel to the Calumet River. In fact there was not over two or three houses south of where the reform-schools are. The Hyde Park Hotel mentioned is about two miles south of the present city limits. The distance from 22d street to the factory was about thirteen miles, and the distance from the Hyde Park Hotel to it is about eight or nine miles.

When we commenced the business of manufacturing a fertilizer in 1864, the material which we obtained in the city produced about five thousand tons of dry product each year, which must have been fifteen thousand tons in its natural state. The material thus received was partly steamed by the packers and partly in its natural state. The head, ribs, backbone, and some of the entrails were steamed by the packers for lard, but the livers, lights, and lungs came to us in their natural state.

We steamed out the livers and lungs ourselves. We tried to get machinery to aid us in the manufacturing, but found it cost more than the product was worth. We tried first piling the material up, in hopes that it would dry by spontaneous combustion. But this failing, we had to spread it out in the sun and air. The spreading was about six inches thick, and it would dry in different periods, according to the weather, from three or four days to as many weeks. After the material was thus dried, we gathered it up and sold it. This was our process while we were doing business at Bridgeport, and before going to Ainsworth.

All efforts to use machinery proved useless.

63 The material used by us from 1864 to 1866 increased about fifteen to twenty per cent. It was produced at the slaughter-houses by the slaughtering of animals, and embraced all the refuse parts of the animal, and blood. These slaughter-houses then, in the main, were located upon the Chicago River and its branches, and within from one to two miles of its mouth; and at first much of the offal and blood found its way to the river. The water-works for city consumption were at that time and are now located near the mouth of the Chicago River, at the margin of the lake. The water was then pumped up from the edge of the lake at a point about eight points north of the mouth of the Chicago River, and in a central part of the city. The current of the lake, opposite the city, makes towards the shore. The deposits of sand brought from more northern regions make constantly, along the whole line of the city, accretions of land. This is particularly so upon the north side, where the water-works are. The location of the packing-

houses upon the Chicago River, with the offal and blood deposited in the river, as it always was to a greater or less extent then, made the water foul and offensive.

After Wahl Brothers and Lightall transferred the fertilizing business from Chicago to Ainsworth, the process of manufacturing the fertilizer at Ainsworth continued the same as in Chicago.

We built open sheds in which the material was piled up, and covered several acres with planks, where we spread it out to dry. The material was received in the winter time, piled up in sheds, and in the spring and summer was spread out and dried as described.

The livers, lights, lungs, and other soft parts of the animal, which came to us in the natural state and unsteamed, we steamed out in large tanks, and we ran the water into the Calumet River.

64 From the factory the water passed from the steam-tanks into a catch-basin. It was drawn from this basin into the river. After drawing off awhile the basin became filled with sediment, which we scooped out, spread on the planks, and dried. During the two years we were at Ainsworth we tried everything we could hear of in the shape of machinery, but never succeeded in getting anything which did us much good. After we went to Ainsworth we received large quantities of blood. This we coagulated and spread in the sun. It was the worst part to handle. Our receipts at the Calumet, during the packing-season, averaged 170 to 180 tons a day, and we received all the offal and blood which the city slaughter-houses produced. These receipts were larger in weight than the same material at the present time, because much of it was in the natural state and unsteamed.

I have examined the statistical report shown me, giving the extent of the slaughtering business in the city of Chicago, of cattle for the last sixteen years and of hogs for the last twenty-one years. This table is authentic and correct, and what is stated as since 1854 is substantially within my present knowledge. The table is as follows:

Cattle slaughtered for city consumption and packed within the last sixteen years.

1856	9,488	1864	157,107
1857	23,022	1865	90,596
1858	74,006	1866	130,454
1859	54,601	1867	114,385
1860	51,631	1868	108,547
1861	80,433	1869	108,385
1862	96,910	1870	141,255
1863	95,134	1871	141,123

65 *Hogs packed in Chicago during the last twenty-one years.*

1851–2	22,936	1862–3	970,264
1852–3	44,156	1863–4	904,659
1853–4	52,849	1864–5	760,514
1854–5	73,994	1865–6	507,355
1855–6	80,389	1866–7	639,332
1856–7	74,000	1867–8	796,226
1857–8	99,262	1868–9	617,558
1858–9	179,684	1869–70	685,959
1860–1	151,329	1870–1	988,087
1861–2	505,691	1871–2	1,225,236

This year the slaughtering of hogs amounts to 1,345,000.

In July, 1868, Wahl Bros. & Lightall sold the fertilizing establish-

ment at Ainsworth to Baugh & Sons, of Philadelphia. They immediately took possession, and shortly thereafter the Northwestern Fertilizing Company was organized under the charter entitled "An act to incorporate the Northwestern Fertilizing Company," approved March 8, 1867. Since that time they have carried on the business of manufacturing a fertilizing material from the same kind of animal matter as was used by Wahl Bros. & Lightall, and at the same place.

The general appearance of the country in the region of the Calumet, and south of the city limits of Chicago, continued substantially the same as it was when we first we' there, up to the period Baugh & Sons took possession in 1868. I did not see a particle of progress; the country was low and swampy, the only high point being a strip of land on which the factory was located; the surface of the ground from the Hyde Park Hotel, about nine miles to the factory, was an alternation of sand-hills and swamps, nearly the whole country being submerged with
66 water during the spring-months. Shortly after leaving the Hyde Park Hotel there was a great marsh, a mile or so in extent. After that there was a strip of dry land along the lake, and the balance was marsh clear down to the factory. From Hyde Park Hotel for ten miles south and three or four miles back from the margin of the lake, I should think three-quarters of the country was overflowed with water. No system of drainage had been introduced in that region of country so long as we were connected with the factory. Its condition as described is the condition at the time we left it, and up to the time the Northwestern Fertilizing Company commenced to do business under their act of incorporation. Within a radius of five miles of the factory the following is a description of settlements: there was a station-house on the Pittsburgh and Fort Wayne road, Doyle's house, and what is known as Washington Heights, at a distance; there was also a lager-beer saloon. Within the radius of five miles three-quarters of the land was covered with water in the spring, until about the first of June. I looked upon the whole country as a swamp; I don't know that I would have given $50 for the whole of it. When we located at Ainsworth we thought we were going into a country where no human being could get; it was just the country we thought for doing a stinking business.

I have been there about twice a year since the Northwestern Fertilizing Company have had control of the establishment.

When it commenced business their method of utilizing the material was very similar to our own. At first they made but few improvements, but within the last few years they have spent a great deal of money, and have made improvements which I consider a success. They also use a much greater amount of disinfectants than we did. Their machin-
67 ery is so great a success that I have bought one for the glue-factory. We are compelled to handle some material by way of converting it into a fertilizer. The diagram hereunto annexed, marked "Exhibit A," shows the machine used by the Northwestern Fertilizing Company correctly, except there should be four fires under the dryer instead of two. The machine referred to has a revolving cylinder thirty feet long and thirty-six inches in diameter, arranged horizontally, with a revolving shaft passing through the centre of it; rakes or teeth are attached to the shaft and so arranged as to keep the material in constant motion and move it along from the end in which it is introduced towards the opposite or discharging end. The whole is so constructed and moved that while the cylinder revolves once the interior shaft revolves twice at the same time.

At the same end at which the matter is put into the cylinder is a

smoke-stack, with a communication between that end of the cylinder and the stack. The cylinder is also enclosed on all sides by a brick wall. Within its exterior wall four coal-fires, within two feet of the cylinder, are kept burning. These fires are so arranged as to envelop and apply to the cylinder a mild and uniform heat. The brick wall, within which the heated air is contained, confines the heat, and the discharging end of the cylinder being open, and the matter within the cylinder being in constant motion and the cylinder about one-tenth filled, gives a draught through it, and the heated air passes into the discharging end, and permeates and passes through the animal matter within the cylinder, and thence through the smoke-stack to the air.

I have examined other establishments similar to the Northwestern Fertilizing Company, but not as large. Taking into consideration the immense quantities of animal matter that they are taking, I cannot see how they could have done it better than they have. Their
68 machine is the only one I have ever known that works successfully. The Northwestern Fertilizing Company have kept up with all the improvements in the business that have been made and tested. In my opinion they have spent more money in this direction than they could afford to.

There is no other establishment in Chicago or in its vicinity for the manufacture of agricultural fertilizers from animal matter, except a small one at the stock-yards, known as "Thompson & Edwards;" and since 1866 there has been no other outlet for the animal matter produced by slaughtering, in Chicago, except at Ainsworth, first under the control of "Wahl Brothers & Lightall," and, second, the establishment of the Northwestern Fertilizing Company.

The way animal matter produced at the slaughter-houses was disposed of as far back as about 1854, and prior to that time, was, by hauling it out to Thirty-first street, and spreading it out on the ground. In the summer, when warm weather came, it made a horrible smell, and the city took out the Bridewell prisoners to bury it. The material was hauled out in wagons and thrown all over the prairie promiscuously. This place at Thirty-first street is south from the central part of the city, and was the principal dumping-ground, but they scattered it all over west of the city. At Thirty-first street there was about fifty acres covered with it, and the place was about three and a half or four miles south or southwesterly from the court-house in the city. It was at this place that we first commenced to utilize this material.

I remember when the charter of the Northwestern Fertilizing Company was obtained from the legislature. At that time Ainsworth furnished the only outlet, or practically the only outlet, for the offal or animal matter of the city. At that time we had been established
69 in this business at Ainsworth about two years, and had about $50,000 invested in the business. The material was conveyed there by cars upon the Pittsburgh and Fort Wayne Road, and collected at the depot at 26th street in the city. As soon as we commenced business at Ainsworth we got this ground for this depot at 26th street; bought our own cars, and had our own side-tracks in the city and at Ainsworth. We also built a platform at 26th street, 250 feet long and 40 feet wide, and inclosed the premises with a high fence, 14 or 15 feet high. To this depot at 26th street the material was brought from the packing-houses, thrown into the cars we owned, and taken out thence daily to the factory at Ainsworth. At first we commenced with five or six cars a day, but the number increased to ten car-loads a day. From this depot at 26th street it was taken to Ainsworth; we went through

the town of Hyde Park. There was no way in which this material could be conveyed to the factory except through the town of Hyde Park, and by means of the Pittsburgh and Fort Wayne Road.

About two years ago the Northwestern Fertilizing Company moved their depot from 26th street to the stock-yards. At the time the Northwestern Fertilizing Company was chartered, Ainsworth was the only outlet for the offal of the city; and at the time the charter was granted the process used, and the only known process, in converting the material to an agricultural fertilizer was that of spreading it out upon the ground, as previously described. We began this business in the city, near 31st street, in 1863 or 1864. Our process then was spreading it out upon the ground until it dried. In 1866 we moved to Ainsworth, and continued the same process until 1868, when the Northwestern Fertilizing Company was organized under their charter, and they have
70 continued the business since. We were the only persons that disposed of and took care of the offal produced between 1863 or 1864 and 1868; and the Northwestern Fertilizing Company is the only establishment which has taken care of it since, with the exception of the small amount utilized by Thompson and Edwards at the stock yards.

At the time we carried on business at Thirty-first street, the stench and offensiveness was very great, and grew worse and worse every year, until we had to go away to Ainsworth.

It is admitted by the parties that the Northwestern Fertilizing Company was duly organized under their charter during the year 1868, and their business has been carried on under and by means of said organization and charter ever since. The copy of the charter, printed as Exhibit A to the complainant's bill, is admitted to be a true copy of the charter of the Northwestern Fertilizing Company.

Cross-examination:

Wahl Brothers & Lightall was the name of our firm at Ainsworth. We got the charter of the Northwestern Fertilizing Company passed through the legislature, and then sold our works and the charter to Baugh & Sons. We organized the Northwestern Fertilizing Company, and made the transfers to them. The sale included the real estate and everything. We received for the sale about $50,000, and as a part of this transaction we perfected the corporate organization.

I was down at the factory last summer, after the warm weather began, and I should think they had four or five hundred tons of material on hand then. February and March, the year before last, they must have had three or four hundred tons on hand. When the material is
71 put into the dryers, it is not filled; there is not more, probably, than two inches of depth on the bottom of it. The cost of the dryers is $1,400 or $1,500 apiece. I consider that the Northwestern Fertilizing Company will be in the best condition, in point of machinery, that it can be put in when they have dryers enough to dry all the material as it comes to them daily. As to the vapor or smoke escaping into the air from the chimney, I believe that can be overcome. I have been at work at a machine for this purpose for a year, and have been looking into the question of machinery upon this subject for over fifteen years. I have now a double cylinder and machinery for the purpose of controlling the vapor and preventing its escape into the air. It is experimental yet, but I believe I will succeed. I have experimented on this subject to the amount of $10,000, and have often thought I have obtained the object, but never have yet fully succeeded. I am, however, still spending money and still trying. I am not familiar with Mr.

Allerton's process. I consider the great trouble about the business of the Northwestern Fertilizing Company has grown out of the accumulation of material more rapidly than they could dispose of it. Piles thus accumulated, and gave off offensive odors.

We picked out Ainsworth as the place for carrying on this business, because we did not consider it possible to carry on the business at all without rendering it offensive; and after a thorough investigation of the country we settled upon Ainsworth as the place that would be least offensive to the community of any we could find. The only difficulty with the Northwestern Fertilizing Company, so far as I can point out, is that in years gone by they did not have machinery enough to work up the material as fast as it came. The packing-season commences in October for cattle, and November for hogs, and lasts until the first of March. With sufficient dryers, the bulk of the business, substantially all of it, could be done between the 1st of October and 1st of
72 April. If they had machinery enough, there would be no need of accumulating at one time more than 100 tons. If the material is reduced in a fresh state there is no stink from the process. I think the profits would be greater by reducing it in a fresh state.

I left Chicago and went to Ainsworth, because the smell was too bad for the endurance of the citizens at Chicago. Before we left Chicago the public indignation was so great that our buildings were burned, as we supposed, by incendiaries. The feeling was occasioned by the fact that the business made such an offensive smell. They have taken more material down than they had machinery to dry. If they had increased the machinery sufficiently they would have been able to keep up with the supply. I have no doubt at all of this in my own mind. The machines for doing this business, which I am interested in, and which we have been experimenting upon for the last four or five months, consists of a double cylinder where we can let in the steam between two cylinders. There is a space between the two 2½ inches, or so; at the end of the cylinder is a pump. By the means of a pump the steam is passed through a series of pipes lying in cold water, which condenses it, and it flows away as water; the whole secret consisting in condensing the steam and flowing it off in water instead of allowing it to pass into the atmosphere. The gas which is in the steam we would burn. With this machine I hope to solve the problem so that this offensive business could be carried on anywhere without emitting any odors. I have had no experience in working up by machinery what is called the soft tank-stuff, or livers, lights, and entrails, by means of machinery, and have not tried to dry this soft tank-stuff in the dryers which I have bought from the Northwestern Fertilizing Company. The mate-
73 rial which I use is of the harder and dryer parts of the animal; and I don't know whether the soft tank-stuff could be put through the tanks at once, when it is taken to the factory, or whether it has to be mixed with saltcake and other materials prior to drying it. I know nothing about drying blood, as to whether it can be dried immediately, by means of the machinery of the Northwestern Fertilizing Company or by means of any machinery, or whether it has to drain off first.

What the manufacturer is trying to save, and what constitutes the valuable part of the material, is what creates the offensive smell if it goes into the atmosphere. The agricultural fertilizer which is produced is valuable in proportion to the amount of ammonia it contains; and if the material is suffered to decay and decomposition to progress before it is put into the tanks, what constitutes the offensive smell in the neighborhood is lost to the manufacturer; and, in order to make it

profitable, the manufacturer should dry it as quick as possible, and save the escape of all the offensive odor which is possible.

The following is about the amount of slaughtering by the city butchers, which is not reckoned in the reports of the packing season. This slaughtering extends all through the year, and is for city consumption: 150,000 cattle; 200,000 hogs; 200,000 sheep; and 20,000 calves. These animals are slaughtered between the first day of October and the first day of October again.

Under our process of producing agricultural fertilizers, by spreading the material out, the dried material analyzed about 1⅝ of ammonia. The process, since we sold out to the Northwestern Fertilizing Company, has been constantly improving.

WILLIAM N. THOMPSON:

I have been engaged in the manufacture of agricultural fertilizers for about seven years. My place of business is west of the
74 stock-yards of Chicago, under the firm-name of Thompson & Edwards. We are about a mile west of the stock-yards. We consume from 3,000 to 5,000 tons of animal material in a year, and have recently adopted the patented dryer of the Northwestern Fertilizing Company. The diagram marked "A," which is shown me, represents this dryer with substantial accuracy. We have two of these machines at our establishment. Before the introduction of these dryers we dried the animal matter in the open air by fermentation, and by adding chemicals. We never have handled any blood to speak of. The process, before we introduced machinery, consisted in piling the material up in piles or win rows, and applying to it, when piled up, a small percentage of sulphate of lime. This was done during the winter months or packing season. The piles were from two to six feet high and from one hundred to three hundred feet long, and altogether the piles contained, on the first of March, from two hundred to four hundred tons. The piles were within six sheds, about six feet through at the bottom and sloping up to a point, and several hundred feet long. After it is thus piled up, the chemicals being introduced as it is piled, it is permitted to freeze, and is left in that manner until the spring months. As the warm weather comes the tops of the piles dry, and when thus dried it is raked off from the top and ground. Then the pile is left again to dry, and the top again raked off until it all dries. After warm weather comes, say March or April, we begin to spread it out on the ground, and this process of drying and spreading it continues all the summer until August or September, when we get through with our season's work. Our process was to induce fermentation by the pile, then, as the top had dried, to spread it out and complete the drying. The sheds were open sheds,
and left open for the purpose of giving ventilation through them.
75 I have seen fertilizing establishments at Wilmington, Delaware; Reading, Penn.; Richmond, Va.; Baltimore, Maryland; and Gordonsville, Virginia; but in these establishments the material was dried before received by them. The dryer of the Northwestern Fertilizing Company, so far as I know, is the first successful invention for drying animal material. Before making purchases of them I traveled through the Eastern States and made inquiries at all points where I could gain information regarding it. I went to Baltimore, Wilmington, Reading, and Richmond, and the result of my investigation convinced me that the patent process used by the Northwestern Fertilizing Company was the best in the country, and, acting upon this belief, I purchased it. We purchased in January last. We receive no blood, but our material is what is known as "tank-

stuff." I have not tested my machine to know whether the soft tank-stuff can be put through it immediately. About one-third of the material which we receive we do not pretend to utilize, but haul it off and throw it away. This useless material is composed of the softer parts of the animal, like livers, lights, and entrails; it contains nearly 90 per cent. of water. What we utilize is what is known as the better class of the tank-stuff, composed of the harder parts of the animal, meat and bone. There are no other avenues in the city open for the deposition of the product of the slaughter-houses except what we take, and what goes to the Northwestern Fertilizing Company. Other cities in the country, like Baltimore, Gordonsville, Richmond, and also Cincinnati, St. Louis, Peoria, Council Bluffs, and Kansas City, in the West, where the slaughtering of animals is carried on, have rapidly-running streams into which the material can be thrown without creating a nuisance; but Chicago has
no place where the material could be dumped; if deposited in the
76 lake it will float upon the surface of the water; besides, the current of the lake opposite and near the city makes towards the shore, which would bring the deposits and lodge them along the margin of the lake, in the vicinity of the city. I have visited the Northwestern Fertilizing Company. It was in 1867, and before any of the machinery was put up. Under the old process the product manufactured contained about 4 per cent. of ammonia; now it contains 8 or 9, and is worth now double what it was worth then.

Cross-examination:

We are endeavoring to arrange to dry the material as fast as we receive it, but portions of it—the livers, lights, and entrails—are so wet, I hardly think it is practicable to dry it as soon as it is received; it should drain off. I have had no experience in handling wet stuff.

CHARLES H. WILLIAMS:

I am a director of mines in the State school at Rolla, Missouri; went there in 1871; but prior to that time was State chemist for the State of Delaware; was also professor of chemistry in the Polytechnic College of the State of Pennsylvania, and have been a practical analytical chemist for about 18 years. I have been consulted by the stockholders of the Northwestern Fertilizing Company for the purpose of advising them from a professional stand-point. This consultation took place in 1868, and stayed at the works at Ainsworth about a week. I also visited the works in July, 1872. Besides, I have been frequently consulted as to the proper methods to be used, and have analyzed the products of the factory.

The process of manufacturing a fertilizer out of animal matter consists simply in vaporizing the water from it, and retaining in it as much ammonia or phosphate of lime as is practicable.

77 I made an analysis for the Northwestern Fertilizing Company in 1868. I have visited other fertilizing establishments—Wilmington, Communipaw, and New Jersey—in fact the most of the fertilizing establishments of the country, as my practice was largely in that line. When I visited the Northwestern Fertilizing Company in 1872 I spent a day there. I found a great improvement had been made since my previous visit in 1868 in the manner of handling the material. There was a much greater degree of cleanliness about the establishment, the material not being handled in so careless and wasteful a manner; and in its general appearance there was a marked improvement. The manner of handling the nitrogenous matter had been reduced to a sys-

tem, and it was very satisfactory and effective. There are so many difficulties in the way of this business, that it is not so much a matter of scientific knowledge as of practical business experience. I analyzed the material produced by the dryers of the Northwestern Fertilizing Company. At my last visit I found it to contain from seven to nine per cent. of ammonia. In 1868 it contained from four to six per cent. What goes into the air and constitutes the offensive smell are the compounds of nitrogen, or compound of ammonia.

In reference to the analysis made in 1868 and 1872, it is perhaps fair to say that five per cent. would represent the one, and 8 per cent. the other; and the difference between the two shows the saving of the amount of offensive matter which went into the atmosphere. My object in visiting the works was to aid them by my advice and scientific knowledge. I was asked to go through the establishment and make suggestions for its improvement, so far as I could, viewing it from a scientific standpoint. My object in 1868 was the same, and at my last visit I was not able to make any suggestions for improvements, although I did make it a matter of study, care, and thought. They mix
78 with the tank-stuff salt-cake or commercial sulphate of soda. I should judge about 25 per cent. of this material is added to the tank stuff. The action of this is that of a defectant, and arrests and prevents decomposition. There is sulphuric acid in it, which prevents decomposition and fixes the ammonia. It is the only commercial article with which I am acquainted that could be used for that purpose, and which would be effective. I think they were using all of this material that their business would justify.

I examined there, also, matter called dry blood, and have analyzed it after it came through the dryers. I have not my note-books with me, but the analysis was made in the summer of 1871, and yielded something over 10 per cent. I should think that 300 pounds of sulphuric acid applied to the dry ton of blood would be sufficient for its coagulation and preservation; and I know of no better process for utilizing this material than I found in operation at the works of the Northwestern Fertilizing Company in 1872. It is impossible to carry on establishments of that kind without, to a greater or less degree, creating offensive odors. It is impossible even to handle that material in the laboratory without creating the same odor, to a certain degree; and the difficulty increases as the quantity is enlarged, because, aside from other considerations, in the laboratory the cost is no obstacle at all; but even there it is impossible to handle it without some odor.

Cross-examination:

The establishments of which I spoke in my examination-in-chief as having visited were where the material is purchased after being partially dried and mixed with other materials to make it marketable. I have never visited but one establishment where they manufacture a fertilizer out of the raw material, as at the Northwestern Fertilizing Company. I never carried on the business.
79 I am a chemist, and have been consulting chemist for a large number of fertilizing establishments. I have never visited European establishments of this kind, but have read descriptions of them, and of the manner of handling the material. I don't know what is being used to convert animal matter into a fertilizer at Communipaw, nor do I know that I know all the various processes which may be in use. At the time I visited the establishment last, it was the 28th or 29th of July, 1872, they were running some dryers, and preparing others

There was a considerable amount of animal matter on hand stored there; quite a large number of tons. Decomposition in this animal matter had been arrested, and there was very little offensive smell from it. The material was partially dry, and I could not tell how it had smelled before I went there. The time of my last visit I was living in Rolla, Missouri, where I now reside. I was passing through Chicago, and meeting the gentlemen, was asked to visit the works. The request was made by Mr. Ralston. At the time I made this visit the company was in some trouble, and it was partly with a view of advising with me as to the improvement of their establishment that I was asked to stop. I understood there was a probability of a litigation, and that I was asked to make an examination with a view to that fact. It was also stated that I was expected to be a witness.

In using salt-cake as a disinfectant the profitableness of the business requires that they should not use an extreme amount of it, because it lessens the value of the product. For instance, if the material contained 10 per cent. of ammonia, and an equal amount of salt-cake containing no amount of ammonia should be mixed with it, the percentage of the product would be reduced to five per cent. This would lessen the value of the product, and besides add dead weight to the transportation.

80 JOSEPH LESTER:

My business is to gather up bones and other matter about the city of Chicago, and convert them into a fertilizer. I have been engaged in this business, substantially, all my life. I visited the Northwestern Fertilizing Company in September, 1872; also in the spring of that year, spending two or three hours there each time. I went all through the establishment and examined the material that was lying there, after it had been mixed with chemicals; also the dried blood and the dryers. I looked also to the manner in which they handled the material. I have visited other establishments like these in New York and New Jersey. Considering the business that was carried on, the Northwestern Fertilizing Company, when I visited it, was in good condition and looked very clean. The best thing to be done with the animal matter is to get it through the dryers as soon as possible. I don't consider that an admixture of chemicals is of material benefit either in preventing odor or promoting values.

I have had occasion to examine the various kinds of machines in use in the United States for the manufacture of agricultural fertilizers from animal matter. I have taken great pains and spent some thousands of dollars in this investigation. Besides I invented one myself, and worked at it for three years. The diagram A represents the dryer of the Northwestern Fertilizing Company with substantial accuracy. I have purchased and am just introducing one into my establishment on the north branch of the Chicago River, within the city, at Halstead, Elston avenue, or Elm road.

This machine is the best I have ever seen, in various ways. It has a more uniform heat, and takes less fire, and is calculated to make less offensive smell. Any machine which creates too great a degree
81 of heat produces smell, just as you may cook a piece of beef-steak slowly without smell, but burn it and you make a smell. Fires spread all along under the cylinder as represented in the diagram cause a mild and uniform heat. After a careful examination, I have adopted this machine as the best that can be found. So far as I could judge, the Northwestern Fertilizing Company, from the two visits made to it, was carried on as well as that business can be done. With

the present experience, and in the present condition of inventions and machinery for that purpose, it is not possible to carry on this business without creating offensive odors. Improvements are being constantly made, and it is probable that in time all obstacles will be overcome. The Northwestern Fertilizing Company have taken more trouble and pains and spent more money than anybody I know of to carry on this business without offensiveness.

I am acquainted with the tank-stuff as it comes out from the tanks. Decomposition immediately takes place. It sets in as soon as the heat is out of it. In from three to four hours offensive odors begin to arise in the tank-stuff. This results just as soon as it begins to cool.

From a knowledge of the location of the depot of the Northwestern Fertilizing Company at the stock-yards, and of the various slaughter-houses in the city, it would be impossible to get the tank-stuff hauled from these slaughter-houses to the depot at the stock-yards before decomposition would set in. After decomposition has commenced the admixture of chemicals will not destroy that decomposition or the effects of it; but the only tendency of chemicals is to prevent future decomposition. In reference to the decomposition which has begun, the only way to get rid of it is to put it through the dryer. The establishments which I visited in the East had no machinery for the utilization
82 of this material, but their process consisted in admixing chemicals with it and spreading it out to dry. I know of no machine which has been so far tested as to render its success certain to dry animal matter immediately as it comes from the tanks, except the dryers of the Northwestern Fertilizing Company. There have been many attempted, and with a great show of success, but they have been failures. There was the steam dryer, but that did not heat the material enough to prevent decomposition after it passed through; and there was one that raked the stuff, but it was too slow. There is another man here now. He was at Reed & Sherwin's with one, and his institution was a failure. His name was Storer, and he is from Boston. It was a failure. They burned the material clear up The gentleman is now experimenting with a machine upon the same principle, with fires passing through the cylinder, lined with fire-brick. I don't think this machine will work as well as that of the Northwestern Fertilizing Company.

The mode of utilizing the animal matter formerly was to spread it out upon the prairie. The slaughter-houses, in early days, were mainly on the South Branch; some on the North Branch. Before the Northwestern Fertilizing Company furnished an outlet, the offal lay in piles along the side of the slaughter-houses, and when it got too bad they carried it farther off on the prairie and dumped it in piles. In this way it stretched along all the way west and south of the city, and south of Archer road. It was piled up two feet thick all along here. There is in that region land made by the decay of this matter a foot and a half thick—earthy matter made of the decay of the animal matter. This was deposited from 1860 to 1868. Always, until the canal was deepened and the current of the river turned into it, the river was foul and in a fearful con-
dition. The reason was that the offal of the slaughter-houses got
83 into it. The city has no natural drainage, except the river, and that is sluggish, and empties in the lake within the city, after flowing through it. Other cities in the United States where slaughtering is done have natural drainage of rapidly-flowing rivers. In New York tide-water will take anything out without creating a nuisance.

At Communpaw there are large slaughter-houses, but the tide-water takes off the offal in New York Bay, and runs it down to Staten Island.

The livers, lungs, and lights, at New York, which will float, are carried out to sea, and the wind and the tides scatter them. The distance to take them out is nearly five miles. The blood is run into the ocean right at the slaughter-house, and what is taken out to sea by the tide, or what is put into the ocean at the slaughter-houses, makes no contamination or nuisance.

Commumpaw is only about four miles from New York. At St. Louis everything is run into the river, and there is current enough to take it off without its becoming offensive.

Cross-examination:

I am not a theoretical chemist, but my opinion is, as I have expressed it, that deodorizing the material does not do any good; and my theory of handling this material is that it should be put through the drying-machine as soon as possible. If it is put through before decomposition takes place, there would be little or no offensive odor; but if the material is allowed to accumulate, with the idea of deodorizing it, the result will be that the amount of offensiveness will be increased.

R. W. RALSTON:

I am vice-president of the Northwestern Fertilizing Company, and have been either secretary or vice-president since its organization. I
84 have also had the practical management and control of the affairs of the company since its organization. Edwin Baugh, the president of the company, has visited Chicago about once a month, and the business has been conducted by myself in consultation with him.

I am practically acquainted with the business of manufacturing fertilizers from animal matter, and have been engaged in the business ever since 1867; for two years previous to 1867 I was engaged in a business similar in Philadelphia.

The Northwestern Fertilizing Company is located north of the Fort Wayne Railroad, at a place called Ainsworth, or what is now known as South Chicago. The company was organized on Monday, December 9th, 1867, and since that time the organization has been kept up, and it has been operated as an incorporated company. It has a president, vice-president, secretary, and treasurer; and its office or place of business is in the city of Chicago. It has a capital of 250,000 dollars, $247,000 of which has been paid in. The first $50,000 of the capital stock was paid in by the purchase and transfer to the company of the works and grounds of Wahl Brothers and Lightall, at Ainsworth, and the balance, making in all $250,000, has since been subscribed, and $247,000 paid in.

When we took possession of the factory of Wahl Bros. & Lightall at Ainsworth, they had open sheds about 300 feet wide and 400 long. These sheds were made of upright posts and a roof. The material was piled up in the winter under these sheds and in the open air, and in the summer spread out on planks and on the ground; they had about 10 acres of ground. Under their system the drying was done exclusively in the summer, and by spreading the material out and exposing it to the sun and air.

85 I went to the works on the 5th of July, at the time we took possession, and the sheds of Wahl Bros. & Lightall were then filled with material which had been taken out the winter before, and about one-half of the two acres of ground covered with planks was also covered with material piled upon it. The piles in the shed extended the entire length of them; when the material was spread out it covered two acres, upon which planks had been spread, and two acres more upon

which there were no planks. It was spread about four inches deep at that time.

The harder parts of the animal, like the heads and legs, trimmings of meat, and bone, were steamed at the packing-houses, but the livers and lungs came in the natural state. Whatever came in the natural state was put into large vats and steamed by Wahl Bros. & Lightall at the factory. Those tanks were six by six, and four feet deep. They occupied about four feet on each side of the track; six feet wide and four feet deep. The livers and lights, and so forth, put into these tanks were heated by steam; after being thus heated the water was drained off into a catch basin, about 100 feet in length, and 10 feet deep; and from this catch-basin it was drawn off into the river. In the bottom of these vats a sediment was constantly accumulating which, after the water was drawn off, was taken out and spread upon the ground and dried. We continued the same process for about two years, and used the same vats as the Wahl Brothers did. The third year we buried the livers, lungs, and soft parts, because we thought it cheaper to do so than to steam and uti ize them.

The most valuable and least offensive part of animal offal is the blood. The better class of offal consists of the head, bones, back-bone trimmings, and other trimmings from hams, shoulders, and generally
86 the harder parts of the animal, excluding the livers, lungs, and entrails. The third class in value are the livers, entrails, and lungs; and the least valuable is blood that is mixed with water in washing out the vats. The livers, lungs, and entrails are not worth utilizing, and we should not take them if we could get rid of them in any other way. We buried in the way I speak of about 300 car-loads from the proceeds of one winter's slaughtering.

During the two years we steamed out in tanks the livers, lungs, and entrails, and our mode of utilizing was that of spreading out the material like Wahl Brothers; we then got a machine, costing us about $5,000, for the purpose of cutting up livers, lungs, and pressing them. These soft parts naturally contain too much water to be easily utilized, and steaming them adds more water. By cutting them up we thought we could save the water added by the steaming process. During these two years, also, we enclosed the sheds and erected three, four, and five story buildings. The machine for cutting up the livers was a powerful machine with a capacity of 100 tons a day; it was on the same principle as the sausage-cutter. The object was to cut the material into very fine parts and then press it for the purpose of pressing the water out of it. The process proved a failure.

We then tried to dry the material by steaming. The idea was to heat the material by passing steam around it, but not through it. That was slow and proved a failure, and we cast it aside.

We next tried the building of a large furnace and a pump, forcing heated air around shelves upon which the material was placed. That didn't succeed. Then we bought a large, powerful brick-press, and tried to press the material into the form of bricks, intending then to dry it in the sun; but we found after it had laid for six or eight months it
87 was still wet, and we sold out the machinery for old iron. We then tried a revolving cylinder, and worked a long time before we could get it to run successfully. The hot air passing through caused contraction and expansion, and we could not regulate it. It was constantly breaking down, but we succeeded, after repeated experiments and great difficulty, in finishing the drying of the material which had been partly dried in the sun, thus furnishing it in this revolving cylinder with the heat which we forced through and around it.

and the Northwestern Fertilizing Company, the Union Rendering Company being to the left of the factory and the Northwestern Fertilizing Company at the right.

Photograph D is a portion of the Calumet River, and the ground adjoining the slough. This shows something of the drains used by Wahl Brothers, but we do not use it now at all.

Photograph E represents the railroad-track, and on the right of it a pile of tank-stuff. This photograph represents the present situation at the factory. These piles are hard, and the horse on the top, in the photograph, was put there to show that the pile is firm and solid.

F represents the building in part, and tank material, and the roadway by the side of the building, and the planks of Wahl Brothers, as laid down for drying purposes. G represents a portion of the building on both sides of the tract, and the railroad-track running through between the buildings. The pile on the right that is enclosed is blood. The pile on the left is blood. There is no drainage from piles of blood like these except what percolates into the earth. Nothing flows off from it. There may be a little discolored drainage from the piles, owing
92 to the fact that the material was thrown upon piles of snow, or snow-drifts; but ordinarily there is no drainage from these piles that flows off.

The product produced by Wahl Brothers and Lightall, under their process, yielded two or three per cent. of ammonia. The same tank-stuff treated by us yields 8 or 9 per cent. Blood yields 15 per cent. of ammonia when it is treated in the laboratory and all of it saved, and we get 14 to 14½. The difference of the percentage of ammonia—that is, the difference between 3 per cent. and 8 or 9—formerly escaped into the atmosphere, and constituted the offensive smell.

After the material is manufactured we find a market for it in Baltimore, Philadelphia, New York, through the Eastern States, and some we ship for Europe. It is designed ultimately to be spread upon the ground as a fertilizer, and it used throughout the Eastern, Southern, and Middle States as a fertilizer for the soil.

There is but one establishment like ours in Chicago; it is that of Thompson & Edwards spoken of, and located at the stock-yards. Some other establishments manufacture fertilizers, incidentally. Wahl Brothers do something at it, although their business is to manufacture glue.

The product of the tank offal from all the slaughtering in the city is about 21,000 tons, and 2,000,000 gallons of blood. All this material is disposed of by Thompson and Edwards and our establishment—substan'ially all.

We were interrupted in our business in January by the authorities of Hyde Park. The engineer and men of our train who were carrying out offal were arrested. They were running a train upon the Pittsburgh and Fort Wayne Railroad from Chicago to the factory; there is no other way in which we can get the material out. Our depot at the stock-yards is about ten miles from the factory, and to go from the depot to the factory we must pass into the village of Hyde Park; and there is no
93 other way in which our business can be carried on except by this railroad, and by carrying the material into this town. In consequence of the arrests our business was interrupted for eight or ten days, during which time we piled up the material produced by the slaughtering at our depot at the stock-yards. There was nothing else that could be done with it. We received and piled up at that depot about a thousand tons of hard tank-stuff and blood, and four or five hundred tons of livers, lungs, and entrails. This was piled on the ground. Our depot

embraces about four acres, and about half of this was covered with the material and blood from four to six feet in depth. This accumulation was caused by the suspension of our business by reason of the interference of the village of Hyde Park, and if the interruption had continued, about 5,000 tons of tank-stuff and about 1,000,000 gallons of blood must have accumulated at our depot and around the packing-houses. At the arrest spoken of the engineer and all the men were taken from the train. Our arrangement for taking out the material is, that we furnish cars and the Pittsburgh and Fort Wayne R. R. furnish engineer and men to operate the train. They were arrested at the factory and taken about six miles before Justice Horn, and fined $50 apiece. There were five of them, making $250. The court threatened to imprison the men, whereupon I paid their fines to avoid their going to jail. We cannot carry on our business if these arrests are continued.

No other city where the packing business is largely carried on is situated as Chicago is in respect to drainage. At St. Louis and other places (so far as I know) they have rapidly-running streams, in which the worthless material is carried off. What material is saved or converted into a fertilizer at other places in the West is done by the process of spreading it out in the sun, and the worthless material is
94 passed into the river, and the swiftly-flowing currents take it off without making a nuisance to anybody.

In order to supply ourselves with material, and relieve the packers regularly, we entered into contracts with most of them that we would take off their material as fast as produced. The amount of these contracts covered about 120 to 125 tons a day. We had entered into these contracts in consideration of having a chartered right to manufacture the material at Ainsworth. We were also under contract to manufacture agricultural fertilizers to the amount of about 2,000 tons, which was to be sent east upon being manufactured. The contracts were made in November, and were to be filled about the first of April. We had facilities both for fulfilling our contracts with the packers to take off the offal, and to manufacture the fertilizing material, and intended to do so, but for the interruption. The cost of the ten days' interruption was about $5,000 to us. If the interruption had been continued, we could not have fulfilled our contracts with the packers or with the purchasers of the material. It would also have been impossible to have disposed of the material, except by piling it up in or near the city to decay when the warm weather came. After the material is taken down to the factory and piled up, there is no drain or flowage of liquid material from those piles into any of the sloughs, or anyw'ere. The soil at Ainsworth is very sandy, and what is pressed out from the piles immediately percolates into the sand, and is gone. The pile on the right-hand side of photograph G represents blood, and it ought to remain in a pile that way six weeks before it goes through the dryers.

Decomposition takes place in the tank-stuff in a very few hours after leaving the tanks. When the animal matter is put into the tanks and steamed, the pressure applied on it disintegrates the animal mat-
95 ter, and even crushes the bones, and converts it into a pulp, and reduces the bones to a soft substance, so they would crumble in the hand. The entrails are put into the tanks without being cleaned; and before the tank-stuff gets to our platform at the stock-yards it is generally in a state of incipient decomposition. The animal matter, when put into the tank, and before steam is applied to it, contains about 50 per cent. of water. The steam process adds about 30 per cent., making 80 per cent. of water to 130 per cent. of material.

I have advised with scientific men, and have endeavored to devise means to prevent the escape into the atmosphere of any gases through our smoke-stacks; and I have received as a reply, invariably, the opinion that it would be useless to attempt it with the quantity of fuel required to consume and decompose the watery gases, and the steam would be so great that it would be practically impossible. There is no machinery that I know of in use that we could buy and apply that would accomplish this purpose.

After decomposition has once commenced in the tank-stuff there is no way of getting that decomposition out of the material or to destroy the effect of it. The best use that could be made of the material, so far as profit and regard for the community is concerned, is to put it through the dryer as quick as possible. Whatever escapes into the air and becomes offensive is the valuable part of the material that we are trying to save. We get eight or nine per cent. of ammonia in the tank-stuff, and fourteen per cent. in the blood, as against three to five in the tank-stuff, and three or four from the blood under the old process; and under the old process of spreading it out the manufacture costs five dollars a ton, whereas, under the present process it costs only two—only one dollar a ton for fuel and one for labor.

96 From the time we commenced business until the present time, besides what we have expended for experiments and improvements, we have only made between twenty-two and twenty-three thousand dollars; this covers our entire profits between 1867 and 1873. There are four officers in our company, and from the time of the organization until 1873 there was not a dollar paid to any officer of the company, as salary, besides myself.

We have, besides attempting to burn the steam, attempted to condense it, but not as yet with practical success. The true way to avoid the offensive odor which passes out through the chimney-stacks in the form of steam, is to adopt some system of tanking the material which will not generate decomposition. Our company have purchased a patent, and we are now doing it, in a small degree, at our establishment at Philadelphia by the use of benzine, and the vapor of benzine, instead of the steam of water. We have expended from six to eight thousand dollars in making this process practicable, and if it proves successful it will solve all the difficulties attendant upon this business. The vapors of benzine, under our process, save twenty per cent. more of grease than the steam process; and, besides, instead of engendering decomposition, the vapors of benzine, permeating the material, is an antiseptic, and prevents it.

I have read the ordinances filed by the town of Hyde Park, with their amended answer.

We cannot so control and deodorize the tank-stuff which comes down to our establishment in the ordinary course of business that the same will not be offensive. No establishment like ours can be carried on unless it will be offensive, except the benzine process proves a success. We cannot carry on this business without having the material on hand more than 48 hours. The wet tank-stuff must be kept on hand from four to six weeks. The blood must also remain about the same length of time.

97 As a rule we get the material from the packing-houses down to our establishment the same day as it is delivered. Our cars go out daily. If the material gets to our depot before 12 o'clock, it goes out the same day; if after 12 o'clock it remains and goes out at 12 o'clock the next day. The material is delivered to us as soon as

it comes from the tanks. We transport it in box-cars—the boxes are about four feet deep, five feet in width, and the length of a car. The boxes are put on a flat car. They were arranged so as to have a cover to them, and, as a rule, they are covered in the summer; in the winter, the bulk of the material being frozen, they are not covered. We have a man at the factory for the purpose of cleaning and deodorizing the cars, in the summer, after they are unloaded, but, notwithstanding this, the cars smell some. It is practically impossible to handle the material without creating an offensive smell; the odor permeates the wood. We use disinfectants to the cars in the summer-time. I never saw a factory for the manufacture of animal matter into a fertilizer that didn't have a smell.

Cross-examination:

After the material is manufactured it is then put in sacks, or barrels, and shipped East, mostly by the Pittsburgh and Fort Wayne Road; it weighs about 250 pounds to the barrel. The shipping of this material to the East costs us $12 a ton. There is no record in the by-laws of the company, showing an official location of its works at Ainsworth. One of our smoke-stacks is 30 feet high; we have two 65 feet high, but do not see any difference, so far as the smell is concerned. The material in the machine represented by the diagram is put in at the same end the chimney-stack is, and passed through the cylinder to the opposite end; it is 30 feet long. It is fed in in
98 small quantities. To shovel it in in large quantities would break down the machine. There is about from five to seven hundred pounds in the cylinder at a time. The cylinder would perhaps hold 3,000 to 4,000 pounds if it was filled. I have tried putting through the wet tank-stuff and the blood immediately, but it clogs, and will not pass through.

Our contract with the packers is that we agree to take the material away—we do not pay them anything for the material, nor do they pay anything to us; but we agree to keep their establishments clear. Some of the packers deliver their material to us, and we are under no obligations to them. We contract to take the material away for those who have it, in the best shape. There is no combination between the packers of Chicago and the Northwestern Fertilizing Company in reference to this litigation, except that it having been commenced in the midst of the packing-season, and they being interested, they contributed a thousand dollars—the payment of a fee to Judge Beckwith, who was employed to represent their interest.

When the company was organized, the platform for the reception of animal matter was at 26th street, within the limits of the city. About two years ago it was moved to the stock-yards, where we have bought four acres of land, enclosed it with a high fence, and made platforms. The whole improvement has cost us $15,000; and the depot was established there in order to render the employment of the material as little offensive to the people of the city as is possible.

The chimneys at Ainsworth could not be built, to any considerable extent, higher than they are now, because no solid foundation can be obtained there.

The benzine process which I have spoken of is now being introduced by our company. We had preparations for introducing it here, but the machinery was burned. The benzine process works upon a small
99 scale, but has never been tried upon a scale as large as we are carrying on business.

GIDEON CLARK:

The following ordinance of the village of Hyde Park was proved to have been duly passed, and offered in evidence:

"No person shall transport, carry, haul, or convey any offal, dead animal, or other offensive or unwholesome matter or material, into or through the village of Hyde Park. Any person who shall be in charge of, or employed on, any train or team carrying or conveying such matter or material into or through the village of Hyde Park shall be subject to a fine of not less than $5 nor more than $50 for each offense."

Chapter II of the Revised Ordinances of the Village of Hyde Park was here offered in evidence by defendants:

"SEC. 1. Any person or persons who shall own, keep, or use any yard, pen, place, or premises within the village of Hyde Park, in or upon which cattle or swine shall be confined or kept, so as to be offensive to those residing in the vicinity, or an annoyance to the public, shall be deemed the author of a nuisance, and on conviction shall be subject to a fine of not less than ten dollars, and not exceeding one hundred dollars in every case, and to a like fine for every day he, she, or they shall neglect or refuse to abate such nuisance, when notified by any officer or policeman of the village of Hyde Park to abate the same.

"SEC. 2. All places or premises within the village of Hyde Park kept, occupied, used for the purposes of steaming, boiling, or rendering in any manner of any offal, tainted or damaged lard or tallow, or the steaming or rendering of any animal substances, when the same is or may
100 be kept, occupied, or used in such manner as to occasion any offensive smell, or to so taint the air as to render it unwholesome or offensive to the smell, and all places where any nauseous, offensive, unwholesome business may be carried on, are hereby severally declared to be nuisances. And any person or persons who shall own, keep, occupy, or use any such place or premises in such manner as to occasion any offensive smell, or to so taint the air as to render it unwholesome or offensive to the smell, shall, on conviction, be subject to a fine of not less than fifty dollars, nor more than two hundred dollars in every case, and to a like fine for every day he, she, or they shall continue to suffer such nuisance to continue after the first conviction, or after being notified by any officer or policeman of the village of Hyde Park to abate the same.

"SEC. 3. Any person or persons who shall own, use, or occupy any packing-house, rendering-establishment, tallow-chandlery, bone-factory, soap-factory, or tannery, who shall cause or suffer any offal, filth, refuse, foul or nauseous liquor, or other offensive matter to be discharged out of, or flow from, any such premises into Lake Michigan, or into any lake lying in whole or in part within the village of Hyde Park, or the Calumet River, or either of the branches thereof, or any of the slips or canals connected therewith, or into any slough within the jurisdiction of the said village, or in or upon any street, alley, public square, vacant lot, wharf, dock, river-bank, or lake-shore, shall be subject to a fine not less than twenty-five dollars and not exceeding two hundred dollars for each offense.

"SEC. 4. Any person or persons who shall permit or suffer any offal, filth, refuse animal or vegetable matter, which is liable to become putrid or offensive, or injurious to health, to remain on any premises, used or occupied by him, for a longer period than four hours at any one time, shall be subject to a fine of not less than three dollars and not
101 more than two hundred dollars, and to a further fine of ten dol-

lars for each day the same shall be allowed to remain after a conviction for the first offense.

"SEC. 5. The owner or owners of any grocery, cellar, soap or tallow chandlery, tannery, stable, pig-sty, privy, or sewer found to be in a filthy, nauseous, offensive, or unwholesome condition, or any other unwholesome or nauseous house or place, shall immediately cleanse, abate, or remove the same upon being notified so to do by any officer or policeman of the village of Hyde Park; any soch owner or owners who shall fail or refuse to comply with such notice shall be subject to a fine of not less than three dollars nor more than fifty dollars for each and every day he, she, or they shall so fail or refuse to cleanse, abate, or remove the same.

"SEC. 6. All buildings, yards, grounds, premises, and places of any and all description in the village of Hyde Park kept or suffered to be in a foul, offensive, nauseous, or filthy condition are hereby declared to be nuisances, and any person who shall own or keep or use any of such places so declared to be nuisances shall be deemed the author of a nuisance, and on conviction thereof shall be subject to a fine not exceeding two hundred dollars and not less than five dollars in every case, and to like fine for every day he, she, or they shall fail or refuse to abate such nuisance when notified by an officer or policeman of the village of Hyde Park to abate the same.

"SEC. 7. No person shall transport, carry, haul, or convey any offal, dead animals, or other offensive or unwholesome matter or material into or through the village of Hyde Park. Any person who shall be in charge of or employed upon any train or team carrying or conveying such matter or material into or through the village of Hyde Park shall be subject to a fine of not less than five dollars nor more than fifty dollars for each offense.

102 "SEC. 8. No person shall establish, maintain, or carry on any offensive or unwholesome business or establishment within the limits of the village of Hyde Park, nor within one mile of the limits thereof. Any person who shall violate any of the provisions of this section shall be subject to a penalty of not less than fifty dollars nor more than two hundred dollars for each and every offense, and to a like fine for each day such business or establishment shall be continued after the first conviction.

"SEC. 9. The depositing of any night-soil, dead animals, manure, or other filthy, offensive, or nauseous substances upon any lot, street, alley, highway, or other place in the village is hereby declared to be a nuisance, and any person convicted thereof shall be fined not less than three dollars nor exceeding twenty dollars.

"SEC. 10. Whenever any nuisance shall be found on any premises within the village contrary to any ordinance of said village, the president of the board of trustees is hereby authorized, in his discretion, to cause the same to be summarily abated in such manner as he may direct."

Defendant also introduced the charter of Hyde Park, from which the following sections are taken from the enumeration of the powers of the board of trustees:

"Eighth. To compel the owner or occupant of any grocery or cellar, tallow-chandler shop, soap-factory, tannery, or other unwholesome or nauseous houses or places to cleanse or remove or abate the same from time to time, as often as may be necessary for the health, convenience, and comfort of the inhabitants of said town.

"Ninth. To restrain, regulate, or prohibit the running at large of cattle, horses, or other animals, or the driving or herding the same upon the public highway or alleys or lands in said town, and to authorize the

distraining, impounding, and sale of the same for the penalty in-
103 curred and the costs of proceedings, and also to impose penalties on the owners or drivers or herdsmen of any such animals for a violation of any ordinances relative thereto.

"Fifteenth. To define and abate nuisances which are or may be injurious to the public health in any manner they may deem expedient

"Sixteenth. To regulate, restrain, prohibit, or license breweries, tanneries, packing-houses, distilleries, slaughter-houses, butcher-shops, stock-yards, or the establishments for the steaming or rendering of lard, tallow, offal, manure, or such other substances as may be rendered, boiled, or steamed, and all establishments or places where any nauseous, offensive, unwholesome, or immoral business may be carried on: Provided, however, that the sanitary and police powers conferred by this act shall not be exercised by said board of trustees as against the Northwestern Fertilizing Company, or the Union Rendering Company, located at or near the Calumet River, in said town, until the full expiration of two years from and after the passage of this act.

"Seventeenth. To restrain and prohibit the deposit of any night-soil, dead animals, manure, or other filthy, offensive, or nauseous substances, upon any lot, street, alley, highway, or other place in said town.

"Twenty-fifth. To make, publish, ordain, amend, or repeal all such ordinances, orders, by-laws, police and health regulations, for the good government of the town and the public health as may be necessary and expedient to carry into effect the power vested in said board, or any officer or agent of said board, and to enforce observance of the same by fine or imprisonment, in the discretion of the magistrate or court before which conviction may be had, provided such fine shall not exceed one hundred dollars, nor shall such imprisonment exceed thirty days.
104 Every ordinance, regulation, or by-law, imposing a penalty, fine, imprisonment, or forfeiture, or a violation of its provisions, shall, after the passage thereof, be posted in at least three of the most public places in said town."

Defendant proved by Gideon E. Clark the publication of the ordinance passed February 13, 1873, set forth in supplemental answer and offered in evidence.

It was admitted that Hyde Park had adopted village organization under the general laws of the State.

This ordinance was passed the 2nd day of November, 1872.

Also it is admitted that the following are ordinances of the village of Hyde Park, duly passed and published;

"Ordained, By the president and board of trustees of the village of Hyde Park, as follows, to wit:

"SEC. 11. All establishments, places, or premises within the village of Hyde Park so negligently conducted, managed, or used as to create such offensive smells as to taint the air and render it unwholesome or disagreeable to the public or to the inhabitants of said village are hereby severally declared to be a nuisance, and every person or corporation who shall create or aid or assist in creating such nuisance shall be liable to a fine of not less than $50 and not exceeding $200, and to a like fine for each twenty-four hours such nuisance shall be continued and remain unabated.

"SEC. 12. Any person or corporation engaged in the business of converting dead animals or other animal matter into an agricultural fertilizer or into other products within the limits of said village of Hyde Park, and who or which shall so negligently conduct, or manage, or aid, or assist in so conducting or managing such business as to create such

nuisance as is described in section 11 of this ordinance, shall be
105 liable to a fine of not less than fifty and not exceeding two hundred dollars, and to a like fine for each twenty-four hours such business shall be in such manner continued by the procurement, aid, or assistance of such person or corporation.

"SEC. 13. No person or persons or corporation engaged in rendering, reducing, or manufacturing animal matter or offal into an agricultural fertilizer or other product shall accumulate at any one place within the jurisdiction of said village, animal matter or offal exceeding one hundred tons, or of blood exceeding 1,000 gallons. Any person or corporation who or which shall violate this section shall be deemed guilty of maintaining a nuisance, and, upon conviction thereof, shall be fined in a sum not less than fifty and not more than two hundred dollars.

"SEC. 14. Any person or persons who, or corporation which, shall cause animal matter or offal to be brought into the village of Hyde Park for the purpose of manufacturing the same into a fertilizer or other product, or who shall aid or assist therein, shall transport the same in close, tight, and covered cars or boxes, and shall deposit the same in close, tight, and covered bins, so that no offensive or unwholesome odor shall escape therefrom. Any person who shall violate this section shall be subject to a fine of not less than fifty and not more than two hundred dollars for each offense.

"SEC. 15. Any person or persons or corporations engaged in rendering, reducing, or manufacturing animal matter or offal into a fertilizer or other product, who or which shall deposit within the limits of Hyde Park any such matter or offal in a putrid or offensive condition, or who or which shall aid or assist therein, shall be deemed guilty of creating a nuisance, and, upon conviction thereof, shall be fined in a sum not less than $50 and not more than $200.

106 "SEC. 16. Any person or persons or corporation engaged in rendering, reducing, or manufacturing animal matter or offal into a fertilizer or other product, who or which shall permit or suffer any animal matter or offal to remain on premises occupied or used by him, or them, or it, within the limits of the village of Hyde Park for a longer period than 48 hours before the actual reduction or manufacture thereof, shall be deemed guilty of maintaining a nuisance, and, on conviction thereof, shall be subject to a fine of not less than $50 and not exceeding $200, and to a like fine for every day he, she, or they shall fail to abate such nuisance.

"SEC. 17. Every person or corporation engaged in manufacturing animal matter or offal into a fertilizer or other product within the limits of the village of Hyde Park shall, before the reduction thereof, thoroughly deodorize the same by the application of salt, acid, or other chemicals, so that the same shall not be offensive. Any person who shall violate this section of the ordinance shall be subject to a fine of not less than $50 and not more than $200.

"SEC. 18. Any person or corporation who or which shall operate or use, or be employed in any factory or other place for the reduction, rendering, or manufacturing of animal matter or offal into a fertilizer or other product between the 1st day of April and the 1st day of November, within the limits of the village of Hyde Park, shall be guilty of maintaining a nuisance, and, on conviction thereof, shall be subject to a fine of not less than $50 and not more than $200, and to a like fine for every day he, she, or they shall fail to abate such nuisance.

"SEC. 19. Nothing contained in this ordinance shall be construed so as to repeal any existing ordinance of the village of Hyde Park relating to nuisances or the abatement thereof."

107 FREDERICK MAHLA:

I am a native of Bavaria, Germany, and by profession an analytical and manufacturing chemist. I was educated at Munich and Gottingen. I commenced the study of chemistry at the age of thirteen, and am now forty-two years old. I studied until I acquired my profession, and have been practising it ever since. Twenty years of my professional life have been spent in Chicago.

I visited the Northwestern Fertilizing Company about the first of this present month. I know the process of manufacture adopted by *the* it, and while I was at the factory examined the piles of animal matter there. The tank-stuff was mixed with salt and salt-cake. I also examined the blood. The blood was in a solid condition, produced by the admixture of sulphuric acid. This is a proper material, and three hundred pounds to the dry ton is sufficient quantity. The effect of salt-cake being introduced into the tank-stuff is to pickle it, and to prevent putrefaction. The salt-cake is the bisulphate of soda, and while these ingredients act upon the material, preventing decomposition, they also absorb the water, drying and desiccating the articles with which they are mixed. Twenty-five per cent. of salt or salt-cake mixed with the animal matter is a sufficient quantity. I should think it extraordinarily large.

The object sought in making a fertilizer is to prevent putrefaction as much as possible and retain the nitrogen. The process consists in expelling the water and retaining all the solid constituents of the animal body. They are the meaty parts, fibrous substances, bone, cuticle, and so forth. The constituents of these organic masses are carbon, nitrogen, hydrogen, and oxygen; and those of the mineral substances are lime and phosphoric acid. The object to be attained is to expel the water and retain all the other compounds.

108 I have examined the tank-stuff as it comes from the tanks. I went to a packing-house and obtained fresh material, such as discharges from their tanks, in order to ascertain whether it had an odor, and whether it was already in a state of putrefaction, and how long it would take the material to assume a putrid condition. When I first took the material from the tank it had little or no odor, but after coming down town and taking it to a warm room I found it had already become odorous. That, however, was not a putrefactive odor. But within a very short time—say about two or three hours—it acquired a regular putrefactive smell, which could not be mistaken. I found that the entrails uncleaned were put into the tanks and steamed, with the manure in them. Putting the offal, in connection with the entrails, with the manure in them, into the tanks, and applying pressed steam, causes the manure to infuse itself all through the pulpy mass, and become a part of it. The particular quantity which I took down town to observe reached a state of complete putrefaction within four or five hours. The temperature on that day was about at freezing-point.

The effect of putting three hundred pounds of sulphuric acid to the dry ton of blood into the fresh blood is to immediately coagulate it, separating the coagulated parts from the water it originally contained. The mass thus coagulated contains about eighty per cent. of water, and if the coagulated mass is piled up, the water gradually passes off from it. The tendency and effect of the acid is to exude the water. When analyzed by a chemist in his laboratory, blood, in a fresh state, contains fifteen parts of ammonia. I have analyzed blood for the Northwestern Fertilizing Company, and what I analyzed contained eleven or twelve per cent. of ammonia. I have analyzed the product of the tank stuff,

but not since they have got their cylinder process. Under the old
109 process, with some machinery which they had, it yielded five or six per cent. After decomposition has begun, it is impossible treating animal matter in large quantities to destroy the effects of such decomposition. It may be done in a laboratory with a small quantity. Considering the animal matter in such quantities as is produced by the slaughter-houses of the city, it is practically impossible to destroy the effects of decomposition already begun, and it is also practically impossible to deodorize the material, so that offensive odors will not arise from it. I think it would be a matter of impossibility. After decomposition has taken place, the best thing that can be done with the animal matter is to put it through the dryer as quickly as its condition will admit. The only object of applying chemicals to animal matter is to prevent decomposition.

Q. I will ask you if, having examined the Northwestern Fertilizing Company, you are able to suggest any improvements in handling the material or reducing it to a fertilizer, whereby the business could be rendered less offensive to the public, or are they doing it as well as it can be done?

A. I could not suggest any improvement in the present mode of manufacturing. I don't think such business could be carried on without the production of unpleasant odors. There are no scientific principles which can be applied to the business to prevent it. When I first witnessed the Fertilizing Company's business, as carried on in Chicago, it was done in a very crude manner. The offal was simply dumped upon the ground, and spread out in layers and removed again after it had acquired sufficient dryness. During this drying process immense volumes of putrid gases were evolved, of which I believe all Chicago had the benefit. The difference in the degree of offensiveness growing out of this business, between a process which produces three per cent.
110 of ammonia in the tank-stuff, after spreading out the material for a long while upon the ground, and one which produces seven or eight per cent. and at the same time consumes the material at the rate of one hundred tons a day, and a process equally rapid which produces fourteen or fifteen per cent. of ammonia from the blood, may properly be measured by the difference in the quantities of ammonia produced; for just in proportion as the material is disposed of and the ammonia passes into the air, just in that proportion is the offensiveness, and in proportion as decomposition is prevented and the escape of ammonia prevented the offensive smell is lessened. And the difference between the three per cent. and the seven to eight per cent. in the tank-stuff, and the three or four per cent. in the blood and fourteen to fifteen per cent., is the result of the improvement in the drying process. The effect of the introduction of salt-cake and salt into the tank-stuff, in connection with the steaming or tank process, destroys the original identity of the parts and produces a product which would hardly be identified as animal matter. The change is so great that a person looking at the pile would not know of what it was composed, except that he would find animal matter in it. The pile assumes a lightish color and looks considerably like a pile of snow or a pile of salt. The pile of blood after the acid is mixed with it has the color and appearance of a very rich brown or black earth, and looks very similar to it. I don't think a pile of blood like that represented in the photograph would exude water in sufficient quantities to make any visible drainage from it, and upon examining the pile in question and the pile of tank-stuff, I could see no indications of any drainage from it, except there were little pools of liquid

blood or water with some small quantity of blood admixed, percolating the earth around the edges of it.

111 Cross-examination:

The process by which the animal matter is reduced to a pulpy state, is the steaming and the pressure of the steam. This necessarily increases the quantity of water in the animal matter originally. I know of no process by which the material could be heated in the tanks except by steam. The soft tank-stuff, when it comes from the tanks, in my judgment, contains from seventy to eighty per cent. of water, and if an attempt was made to put it through the dryer it would bake to the sides of it. I know of no process by which the water can be exuded from it except by natural drainage. Wahl Brothers attempted to do this by pressing the material, and then they produced a centrifugal machine to force it out by centrifugal force; but in all these experiments it was found that the material itself would go through with the water. Nearly all the material would thus pass out with the water and could not be retained, excepting the bony substances or hard and solid constituents.

It seems to me the odor in the tank-stuff, immediately upon taking it from the tanks, must arise from the admixture of manure contained in the entrails, and the rapid advance to decomposition and generation of animal life is attributable to the same cause. If the entrails could be steamed separately from the other parts of the animals, I think decomposition would be delayed, and I see no reason, except economic reasons, why this separation could not be made. The effect of the admixture of sulphuric acid with blood is, that coagulation immediately takes place, and the water is separated. It remains admixed or intermixed with the so separated substances, but chemically taken, it is separated. The water thus separated passes off by natural drainage.

112 Q. You say you cannot suggest any improvements in the present mode of manufacture at the Fertilizing Company's works. Now, I ask what means, if any, you can suggest in any mode of manufacture which will save the public from offensive odors? We are entitled to your best judgment in regard to the mode of their manufacture, and upon any improvements which may devised.

A. Any mode that will effect the desiccation of the article more rapidly may be considered an improvement. In this benzole process the company desire to introduce—or benzine process they call it—that, of course, has a tendency to accelerate the desiccation, whereby, of course, the process would be improved.

A. Supposing if this business of manufacturing was carried on in a dozen different factories on a small scale, the putrefaction and offense about the premises need not be as great as about these premises at Ainsworth, need it?

A. If a factory of this kind has a sufficient number of dryers, it seems to me it would be better to confine it to one place, as there is an absolute consequence in every manufactory of this kind, that some odorous principles are evolved, thus creating always a sort of unpleasant smell, which cannot be avoided during the manufacture.

Q. You would say that a number of these dryers, or, in other words, a large number of these factories, would be better than a small number?

A. Yes, of course.

Q. But you would limit them to one neighborhood?

A. Yes.

The natural drainage of the tank-stuff must be very slow, slower than the blood, and I think, under any circumstances, it would take several weeks to complete it.

There have been attempts to diminish dense vapors which pass off through the smoke-stack at the works of the Northwestern Fertil-
113 izing Company. They conducted the vapors through horizontal brick flues, and then passed water through the flues.

The idea of condensing these vapors to avoid the offensive smell would, of course, at once present itself; but this can only be done by large masses of water-showers, as it were, and which, owing to the great quantities of water required, render the attempt impracticable. I suggested a mode of cooling the gases which, I understand, they will attempt to try.

I know by reading, but not by personal observation, that in eastern cities there are establishments applying water by filtering processes through smoke-stacks. These experiments are, as I understand, only partially successful in distroying the odorous principle. In the present case, any attempts to shower the chimneys would probably have the effect of destroying the draft of the furnaces. I have been consulted by the Fertilizing Company as to whether they might not devise some plan to prevent the escape of the gases into the atmosphere, and I have given them the best advice upon the subject I could. As a rule, unless on account of the weather, the higher the chimneys the more likely are the gases and bad odors to pass away into the upper air.

I don't know of any process by which the gases which escape by means of the chimney can be condensed, or the escape of the odors fully prevented.

C. M. CADY:

I am president of the board of trustees of the village of Hyde Park, and have occupied that position for the last five years. I have examined the letter set forth in the bill of complaint in this cause, addressed to John Cleeland. I wrote it, and it was published in the city papers.

I also wrote a letter which appeared about the same time in the
114 Chicago Times, stating that it was the intention of the village of Hyde Park to prosecute the Northwestern Fertilizing Company, and drive it out of the community.

It is true that as president of the village of Hyde Park it was our intention, by arrests and prosecution, to eradicate and get rid of the institution. It was my intention, by the letter addressed to Mr. Cleeland, and by executing the ordinance preventing the taking of offal into the village of Hyde Park, to cut off the supplies of the institution, and prevent its having any offal. And, if uninterrupted, I intended to persue these arrests from time to time, till it would be compelled to stop from pure strangulation. If this injunction is dissolved, I intend to renew the war, if I live, the next day after it is dissolved, or as soon as practicable.

Cross-examination:

I inaugurated this war against the Fertilizing Company, and made the arrests, in good faith, as an officer of the town of Hyde Park. Finding our efforts in this direction interrupted by the injunction, we passed the ordinance attempting to regulate the institution, and our object was, as far as possible, to abate the nuisance. After the arrest of the employees, who were brought before Justice Hoyne, I instructed the police to go back again to the factory and make new arrests when the next train should arrive. I instructed them to bring the men thus arrested for trial to that portion of Hyde Park near the Hyde Park Hotel, which is between five and six miles from the factory.

JOSEPH HIRSCH:

I am a chemist of sixteen years professional life, and reside in Chicago. I was educated for my profession at the University and at the Polytechnic Institution at Leipsic. After acquiring my profession, I
115 practiced a short time in Europe, and since have been in America, thirteen years of which time has been spent in Chicago. I have twice visited the Northwestern Fertilizing Company—once a few years ago, and once last fall, and spent about half a day at the factory. The first time I was there they spread the material out and dried it in the air and the sun. The last time they mixed sulphuric acid with the blood, and salt or salt-cake with the tank-stuff; and after being thus mixed and dried or drained, it was put through dryers. The salt-cake and salt, admixed with the tank-stuff, and the sulphuric acid with the blood, are proper materials, and the quantity used is a proper one. My impression, from an examination of their establishment, was that it was carried on properly, but that material, when received by them, was so decomposed that it made it very difficult to prevent offensive odors. I gave it as my opinion that the animal matter ought to be treated at the packing-houses by the packers, and before it leaves the packing-houses. So far as the treatment of it by the Northwestern Fertilizing Company, after it is received by them, I was not able to make any material suggestions. What I would suggest is that a small furnace should be put up in some convenient corner of the packing-houses, in which chemicals should be vaporized and carried into the tanks in which the material is steamed. There are different gases which, I think, might be used for this purpose. Notwithstanding the treatment which I suggest at the packing-houses, I think there would be some odor attending the manufacture of the animal matter, but it would, I think, be materially lessened.

I don't think the greater elevation of the chimneys would prevent offensive odors, even in the neighborhood, because the gases which are thrown out rapidly condense, and they would fall to the ground.
116 These gases are the products of the destruction of the fatty compounds in the animal matter, mixed with ammonia and compounds of ammonia, mixed with sulphurated hydrogen and compounds of sulphurated hydrogen. They are of a very complex nature.

I heard Dr. Mahla's testimony suggesting the obstacles to throwing water down the smoke-stack or showering it, and I consider that little benefit would come from that in this case, because the gases arising in this case are not such as would dissolve in water even if they could be condensed by it. And besides, the water itself would be a source of very disagreeable odor, because it would have to be carried somewhere. The best thing I could suggest in relation to the gases passing up the chimney would be to burn them. I don't know, however, that they could be burned in connection with as much moisture as they are saturated with coming from the dryers. I think if that could be done it would be the best way. In reference to my suggestion about deodorizing the material at the packing-house, I don't know of such things ever having been done practically.

There was a great improvement in the Northwestern Fertilizing Company between the two different times I was there. The character of the improvements were that the old mode of drying was completely abandoned, and that dryers such as were used the first time were greatly improved and simplified and rendered more efficient. The establishment was also greatly improved with regard to its offensiveness to the surrounding neighborhood, and I found that the smell of putrefaction had,

to a great extent, been destroyed by the use of chemicals, and the establishment was greatly improved in respect to the general air of cleanliness and neatness. Now, the smell attached to the establishment is what you might call a manufactured smell, or a result from the
117 chemicals mixed with the animal matter, rather than the smell of putrefaction. About the Union Rendering Company's establishment, which is quite near, there was a large number of dead animals in all the various stages of decomposition and putrefaction. These dead animals, and the putrefaction arising from them, overwhelmed the smell arising from the Northwestern Fertilizing Company.

Cross-examination:

I have suggested that the material be treated at the packing-house to arrest decomposition. This could be done by carrying into the vats sulphuric-acid gas, carbolic acid, or the products of combustion of sulphur and gas-tar. Decomposition in that way may be arrested for several months. If the process was properly applied at the packing-house the odors arising from the drying process would be very greatly reduced.

CHARLES E. REESE:

I am a resident of Hyde Park, and live within about four miles of the Northwestern Fertilizing Company. I am frequently about this establishment, and was there this week. I was there just before the fire, and have been there since the fire. While Mr. Bennett, the former foreman, was there I had frequently occasion to go down and see him. I should think I was about the factory once in two weeks during the year. That was the year before last. I am a justice of the peace. I have been about there ever since the year 1854, and have lived in the neighborhood ever since that time.

I also knew the establishment when Wahl was there. There has been a great improvement since Wahl Brothers & Lightall had charge of it. They used to dry their material upon planks, thus creating a very bad smell all around. The factory is in a great deal better condi-
118 tion than it was then, regarding smell in the vicinity, and as regards cleanliness. I have known the Union Rendering Company ever since it was built, which was six or eight years ago. It was probably twenty rods from the works of the Northwestern Fertilizing Company. Their business was to render dead animals, and extract the grease from them, and the smell was very offensive from the sediment which came from it. It also polluted the Calumet River. They did this to such an extent that I was instructed to look after them in this particular.

Exhibit No. 7, shown to me, is a correct representation of the works of the Union Rendering Company. The larger building shown on the photograph is the establishment of the Northwestern Fertilizing Company. The drain shown in the picture is from the Union Rendering Company. This is shown more fully in photograph No. 1. Photograph No. 3 also shows this drain.

The Union Rendering Company used to receive dead animals in all stages of decomposition. They were brought there by the Pittsburgh & Fort Wayne road from the stock-yards. After their arrival they were put into tanks and steamed. After being steamed, and the grease obtained, the water was drained off and flowed through these drains into the Calumet River, and the sediment or animal matter left after the water was drained off was thrown on the ground and decayed. It smelled very badly. Whether it was the rendering company or the

fertilizing company which smelled I cannot say. I could smell the establishments for miles—to my house. The Union Rendering Company is now removed. The effect of the removal of this establishment is to reduce the smell, and the fertilizing company itself is not nearly as offensive as it used to be. While the Union Rendering Company was there the marshes were filled with animal matter—the residuum after tanking. This was the work of the Union Rendering Company, and not of the fertilizing company.

119 MARC DELAFONTAINE:

I am a native of Switzerland, and by profession a chemist. I have been engaged in that business for about fifteen years. Was educated in France and Germany. I have practiced my profession for three years in Chicago. I visited the Northwestern Fertilizing Company in November last, for the purpose of examining the establishment, and pointing out wherein it could be improved and made less offensive. The premises were in a cleanly condition. We went through the entire establishment and examined the process of manufacture. We saw the piles of the offal after it had been admixed with chemicals, awaiting the drying process, also piles of blood and the lungs and livers, or soft tank-offal mixed with the salt-cake. I took pains to examine the animal matter.

The smell from the piles was perceptible only a short distance—I cannot tell how far exactly, perhaps twenty yards. But as you approach the pile and come near it, there was a smell. I speak now of one particular pile. The balance had very little smell. The pile which I said was offensive and could be smelt at twenty yards distance was a small pile, perhaps six feet high. The blood did not smell. It was there in piles, and the men were shoveling it about. There is no smell of a putrefying character attendant upon the manufacture of the blood. I also examined the drying process, and the manner in which they handled and put through the material. The material, when sufficiently dry, is fed into the cylinders in very small quantities or shovelfuls, enough to make two or three inches of thickness on the bottom of the cylinder. The whole is kept constantly in motion throughout the cylinder by the rakes and the revolutions of the cylinder.

What they put into the cylinder, in the condition in which they put it in, has substantially the appearance of animal matter, but is a
120 dry powdery substance. The material put into the cylinder could not be recognized. The machinery was constructed upon the most scientific principles, and I don't think, taking the whole treatment with the machinery, the problem could be solved in any better manner. The object sought is to dry the material without burning it; and it seems to me the machinery in the way it works is very well adapted to this purpose.

The most objectionable part of the establishment is the soft tank-stuff, or the livers, lights, and entrails. The admixture of the salt, or salt-cake, combines with it—the water—or absorbs the water, but elements of decomposition have been introduced in the tanks.

Q. I will ask you whether the material used—whether the acids, and the manner in which they are used—is treating this material as well as it can be treated, in your judgment?

A. Yes, sir. It is possible that some other methods could be devised to treat the same material; but none, so far as I can see, have received the sanction of experience on a large scale. I don't know of any that would do better, and I have tried to post myself on this subject.

OLIVER W. HODGES:

I am a photographer by profession. I have examined the photographs marked B to J inclusive. They are photographs of various views of the factory and the surroundings. C is of the rendering company and the fertilizing works. All of them from B to J are views of the place and its immediate surroundings. Photograph number 2 shows a drain from the rendering company to the river. The building is the fertilizing company. Number 7 also shows the building of the Northwestern Fertilizing Company.

EDWIN P. BAUGH:

121 I am president of the Northwestern Fertilizing Company, and have been connected with it from its organization. Have been engaged in manufacturing a fertilizer from animal material nineteen or twenty years in the city of Philadelphia and at Chicago.

The manufacture of superphosphates in the East has within the last fifteen years grown to be a large and important interest. One of the indispensable elements to this industry is the production of matter containing ammonia. As I visited Chicago in 1861, I found immense quantities of animal matter from which we produce ammonia being wasted, and conceived the idea of establishing what is now the Northwestern Fertilizing Company, with a view of supplying ourselves, and the East generally, with this article. At the time I was here, the animal matter was handled in a very crude and offensive way, and it occurred to us that we might improve the manner in which it was being handled, lessen its offensiveness, and dispose properly of what was an annoyance, and at the same time make money for ourselves, by supplying the necessity which I have named.

At the time we took the establishment, there was no machinery known in the business. Since we got the establishment we have expended here in the buildings, improvements, machinery, and experiments, between two hundred and forty and two hundred and forty-eight thousand dollars. This embraces the purchase of the property and the general management of the business. The first year of our business was not remunerative at all. Then we made very small profits. This last year, after paying expenses, we made about twenty-two thousand dollars.

I visited Great Britain and France, in 1866, with the direct object of getting information as to the proper mode of handling offal. I found no place where there was one-tenth of the offal treated that is
122 treated here, and besides all the towns and cities had rivers in which they could waste whatever was not worth utilizing. The same is also true of the United States in reference to opportunities to waste useless material. At St. Louis, Cincinnati, and other places, the poorer class of the offal, or that portion they cannot utilize immediately, is thrown into the river, and the current is rapid enough to take it off without creating a nuisance. The better class is taken five or six miles away by boats, and there spread out and dried. The same is also true of Council Bluffs, Kansas City, and Dubuque. The same is also true of Allentown, Baltimore, Richmond, and other important slaughtering points in the East. At the East, also, the country being densely populated, there is a demand for soft tank-offal for manure, and it is taken out in small quantities and spread on gardens and fields, and so disposed of as not to be offensive.

Animal matter may be divided into three grades—the blood, the harder or better class of the tank-offal, and the poorer class. At Communipaw they only save a small portion of the blood, and whatever they

desire to waste is readily passed into the ocean, and no offensive effects result from it.

Sixty-four patents have been issued from the Patent-Office for machinery in utilizing animal matter, and we have had them all carefully examined to ascertain their value. I read all their specifications, and examined them all thoroughly. Of these about twenty we thought worth looking at more minutely; but out of the whole sixty-four I don't know of one that has passed into or been retained in use. I don't know of any dryer, except our own, that has been successful and has been continued to be used practically. We have dried through ours from fifteen to twenty thousand tons, and have sold a number of machines for the use of other people. They are used here in the city by Les-
123 ter, Wahl Brothers, Thompson & Edwards, which is substantially all of the drying that is done in the city. They are also used in South Carolina, and at Wilmington, Delaware, and one is erected in New London. Out of the sixty-five patents made prior to 1865 there is not one that remains in use to my knowledge.

Besides the dryer, we have another process known as the benzine process. This has been in operation at our factory in Philadelphia since the first of January last, and the party of whom we bought it worked it three years. He expended ten thousand dollars upon it. We took it the first day of January, with his apparatus, machinery, and everything connected with it, and are working it on joint account to demonstrate the theory. So far it has produced satisfactory results. It is a new field of science, and we are approaching carefully and slowly. Had the fire not taken place at our factory at Ainsworth when it did, we would have had an apparatus going there before this time. We shipped the machinery and proposed to try it here at a cost of ten thousand dollars. The fire caused the delay in the introduction of it into Chicago, and we have been prosecuting the work every day, and getting satisfactory results. Altogether we have cured by this process thirty or forty tons, and we have got it so now that at the present time we are running it at the rate of twenty tons a week.

The advantage of that process over the present is very great. In the first place it arrests decomposition itself, and removes the grease. At the same time this process is intended to supersede the use of steam in tanking the material. It is the use of steam that is the foundation of the trouble, by putting the material into a condition where decomposition immediately takes place. The same process, performed by the vapors of benzine, extracts the grease, but infusing into the material an antiseptic, it prevents decomposition. And besides preventing
124 decomposition, the product of grease yielded is twenty or thirty per cent. greater. The great difficulty in handling animal offal at the present time grows out of the tanking system.

We consider that the steam infused into the material by the tanking process is the cause of immediate incipient decomposition. The use of the vapors of the benzine not only increases by about 20 per cent. the product produced from the animal matter, but permeates it with the disinfectant, which prevents decomposition. The 20 tons of offal we have steamed by this process in Philadelphia is different from the packing-house offal, but still it is liable to emit odors, and the effect of the process upon it is that it very materially reduces the offensive elements. We are making preparations to introduce this into our factory at Ainsworth as rapidly as we can.

Cross-examination:

My visit to Europe embraced England, especially London; and a part

of France. The slaughtering in London is scattered over many places, and I cannot give an accurate account of the business carried on there. This is also true of Paris. I visited one establishment at London where they manufactured 30,000 tons a year, but this is different material from our own; it is the superphosphates.

CHARLES N. CULBERTSON:

The object of tanking the animal matter is to get the grease from it. That is the way all the lard of the country is produced. We take the leaf lard out of the hog, and the joints, and then the animal matter produced by the slaughtering, aside from that portion used for meat, is rendered in these lard-tanks. As it is heated with the steam the lard rises to the surface and is skimmed, or drained off. The water is then drained off, and the residue is this stuff about which there is so much
125 contention. The entrails, after getting what lard we can by trimming, are thrown into the tank and a cheap kind of lard is produced from it. Animal offal produced at the factory is divided into three grades: the blood, which is the most valuable; the hard portions of the animal; and the soft tank-stuff.

WILLIAM FUSTMAN:

It is my duty to receive all the animal matter at the depot at the Union Stock Yards for the Northwestern Fertilizing Company. I am there every day. When the blood arrives we put 300 pounds of sulphuric acid to the dry ton, and in a couple of minutes this coagulates it so that it can be handled with a shovel. After being coagulated all that we can handle is sent to the factory. We also receive the tank-offal at this depot, and it is sent forward every day—all of it—to the factory.

I remember when we were stopped from our work by the injunction. It was about the 8th of January, and the interruption lasted ten days. What accumulated in the ten days, we piled up at the depot, and it stayed there about three weeks, when we commenced shipping it off. It is sent to the factory in box-cars, the blood and the tank-offal separate. Our largest receipts are 200 to 250 tons a day. This is when the packers are killing fast. In the summer-time the cars are always cleaned down at the factory and scraped. By cleaning, I mean washed. In the winter the material is frozen. There is no smell when the tank-stuff first arrives, but leave it for half an hour and it begins to smell. The blood does not smell at all.

It is admitted that the Northwestern Fertilizing Company is located in Cook County, south of the limits named in its charter.

JAMES CONOLLY:

I have for two years been foreman for the Northwestern
126 Fertilizing Company, and it is my duty to supervise the handling of the material. As soon as the tank-stuff arrives, we mix it with salt and salt-cake, adding 25 per cent. to the soft tank-stuff. The blood has been coagulated before it arrives.

There are two tanks of tank-stuff, and we have to use them differently. The wet tank-stuff we wheel back and mix it, and leave it standing in a pile. It is necessary for it to stand six or eight weeks, when we run it through the dryers. We cannot use it any sooner, for it would clog the dryer and break the machinery, and burn on to the sides of it. There is too much water in it.

The material commonly goes into the dryer when it is in a proper state. We have a man constantly standing at the end where it is fed,

to break up all the little lumps. The blood cannot be put through at once; it has to remain until it dries four or five weeks, and then it becomes powdery and can go through the machine.

I have examined photograph E. The pile on the right of the railroad represents blood. A pile like that should remain two months before it is put through the dryer. The top dries, and it can be raked off and put through before that time. I mean it would be two months before the whole pile could be used up.

Photograph C represents a pile of blood. There is no drainage from these piles. It may run a little on the sand, but it don't run far enough to make any show. We had eight dryers on the last days of December and the night before the fire. After the fire we were running again in thirty days, and have now got seven dryers, and are putting up the eighth, which will be done next week. Running night and day, as we do, we can dispose of all our material by the first of August. We can dry within twenty-four hours, with each one of these dryers, from eighteen to twenty tons of wet stuff.

127 Material at the factory is not scattered around over the ground, but it is piled up in piles, as shown by the photograph. These photographs, C, E, B, and H, represent the condition of the buildings and surroundings of the road running past there. The blood, after it has been mixed with the acid, has no offensive smell, and it is immaterial how long it lies before it goes through the dryer.

The best way blood or soft tank-stuff can be handled is to mix it with the deodorizing material and the acid, and put it through the machine as quick as it is capable of being done. There has been a great improvement in the country about the Northwestern Fertilizing Company since the Union Rendering Company left. They left about the first of November, 1872, and had been there for several years before.

FREDERICK G. WISEVOGEL:

I am the engineer of the Northwestern Fertilizing Company, and have had experience in the handling of the soft tank-stuff and the blood. It is impossible to put either of them through the dryers as soon as they are received—each must stand about six weeks. There is no smell whatever connected with the blood, and it is immaterial how long that stands. Since the Union Rendering Company went away the Calumet River is clear; our men drank it for their water. The Union Rendering Company used to corrupt the stream very badly. There are no drains from the Northwestern Fertilizing Company into the river, and no drainage from the establishment into the marshes or into the river. He says he don't know of any drain. There was a drain when Wahl Brothers & Lightall had it, but that has ceased to be used since the Northwestern Fertilizing Company have had possession. There is nothing that flows off from the piles of tank-stuff or the blood—nothing flowing in any drains. I am about the factory every day,

128 and there could not be a drain from these piles without my knowing it.

Doctor J. H. RAUCH:

I am sanitary sup'rintendent of the city of Chicago, and have occupied that position for six years. In the discharge of my duties I have had occasion to make an estimate of the amount of offal which is produced in a year. The facts upon which I based this calculation were obtained in the usual course of investigation used in our office, and from the most relied statistics reached.

Cattle—4,625 tons, and 3½ gallons of blood to the head, making 647,

500 gallons of blood from cattle. I estimated hogs slaughtered for 1872-'3 at a million and a half. The amount of offal from this source is 15,000 tons, and 1,500,000 gallons of blood. There were about 75,000 less hogs slaughtered than this calculation would indicate. The packing-season commences the first of November and ends the first of March; and what is slaughtered outside of this period is called irregular. Sheep slaughtered for 1862 numbered about 170,000, making 566 tons of offal and 56,000 gallons of blood.

I know the location of the Northwestern Fertilizing Company; it is situate southeast from the court-house, in the city. In the course of my observations as sanitary superintendent I have had occasion to collect statistics as to the location of the wind. These observations run back as far as 1859, and there are three observations a day. They cover the years 1859, 1860, 1861, 1862, 1865, 1867, 1868, 1869, 1870, 1871, 1872.

The result of these observations is as follows:

129 38 observations from the north.

141 N. E.
40 E.
96 S. E.
44 S.
196 S. W.
104 W.
63 N. W.

Total observations, 732.

1860.

43 observations from the north.

132 N. E.
46 E.
96 S. E.
27 S.
157 S. W.
108 W.
114 N. W.

1861.

28 observations from the north.

125 N. E.
46 E.
66 S. E.
51 S.
182 S. W.
73 W.
161 N. W.

1862.

—observations fromthe north.

163 N. E.
46 E.
67 S. E.
93 S.
161 S. W.
42 W.
100 N. W.

Total for 3 years:
N., 203.
N. E., 738.
E., 205.
S. E., 307.
S., 286.
S. W., 939.
W., 382.
N. W., 511.

1866.

39 observations from the north.

175 N. E.
44 E.
104 S. E.
75 S.
274 S. W.
215 W.
169 N. W.

1867.

30 N.
203 N. E.
64 E.
175 S. E.
30 S.
249 S. W.
128 W.
193 N. W.

1868.

53 observations from the north.

266 N. E.
85 E.
178 S. E.
37 S.
264 S. W.
122 W.
171 NW.

Considering this establishment is within half a mile of the light-house at Calumet, the exact points of the compass from the court-house at Chicago would be S. E. by ½ S. From the more settled portions of Hyde Park it would be a little more directly south.

C. M. CADY recalled:

130 The arrests made about the 8th of January were made under the ordinance of the village of Hyde Park, which prevents the taking of any offal into or through the village. The complaint was made under that ordinance, and they were arrested for taking the material into the village.

PETER GEHERAN:

I have counted the houses in Ainsworth, or South Chicago. In the village and around the light-house there are 118 altogether; 45 are occupied by men working in the Northwestern Fertilizing Company. I made the count yesterday. As one leaves that cluster of houses it is a little over three miles to the next settlement. That settlement—three miles distant—is the watch-factory; and between the two there are only two houses. There is no other cluster of houses about there in that region of country; 45 of the houses named are occupied exclusively by men who work in the Northwestern Fertilizing Company.

Doctor RAUCH recalled:

The amount of offal produced at Chicago cannot practically be buried. As soon as the decomposition takes place the gases escape through the covering into the atmosphere from the mass of material. There is great trouble by parties attempting to bury within the city limits. They generally cover it up, and the moment decomposition begins to take place the gases escape into the atmosphere. The current of the lake along where Chicago is located makes towards the shore and forms accretions of land upon the shore.

JOHN HAGERTY:

I am a conductor of the train which takes the fertilizing material from the city to Ainsworth, and was such conductor at the time the arrests were made by the village of Hyde Park, in the month of
131 January last. There were five persons on the train. They arrested me and two brakemen first, and left the policeman on the engine all day till evening; then they took the fireman and engineer off. When this was done the train was at South Chicago, or Ainsworth. The arrests were made about nine o'clock in the morning, and detained us all day. We got back to the city about three o'clock the next morning. He had sent another engineer and fireman down after the train.

I have had for the last two years charge of the train which takes the offal to the factory. If these arrests were continued it would be impossible to carry on this business. The offal is carried in the winter in flat cars, open; and the offal is frozen and piled up.

Testimony of the respondents.

C. M. CADY:

I have been president of the board of trustees of the town or village of Hyde Park for some five years. Hyde Park station is about 20 rods west of the Hyde Park Hotel. My residence, in Kenwood, from the Hyde Park station, is northwest, or a little west of north. I have no means of estimating accurately the population of Hyde Park except by the vote of the last presidential election, the figures of which I have forgotten, but I made an estimate at the time. There was about a thousand votes in the village, and estimating six of population to the voter would give us 6,000.

I have been at the factory at Ainsworth; it is five or six miles from

the Hyde Park Hotel. Since 1867 I have visited the Northwestern Fertilizing Company about once a year; these visits have been made at all seasons. Since last November I have visited the establishment twice; once in January, when I took the police down there, and the other
132 last Saturday. At the time of my visit, when the arrests were made, the buildings were burned; there were masses of manufactured fertilizer, I should judge, and large masses of raw material stacked up on both sides of the track. They were pretty large piles, and it is difficult for me to estimate by tons. It was stacked up over 100 feet or more, on each side next the railroad-track, five or six feet high, and, I think, sloped off back some 50 or 60 feet in width. Similar piles on the other side of the track also. The blood and the tank-stuff were separate, and these piles were in the open air.

The day I was down there it was frozen and there was very little smell. I could not distinguish the different kinds of tank-offal; my attention was not called to that. I saw indications of drains when I was there the last time, and indications of bloody matter running off some rods from the piles. The time I was down there a week ago last Saturday the place was dressed up and looked very neat and clean in comparison with previous times. When I was there in January I didn't notice the drains; since then I have. They ran nearly east from the factory into the slough, or through the slough. I didn't follow them to see whether they led from the slough.

Photograph B shows the works and the slough upon one side, but there is a slough on the other side not shown in the photograph.

Photograph No. 2 gives in the foreground a drain which runs from the Union Rendering Company with a slight indication of the marsh which lies on the east of the factory before it was burned. That drain in the foreground is from the Union Rendering Company. On the right of the picture are the old buildings of the Northwestern Fertilizing Company. I examined the works of the Union Rendering Company before they moved. That company moved further south last fall, probably in November. What was left by the Union Rendering Com-
133 pany has so far become incorporated into the soil that it has not caused the smell from that locality during the past winter.

The village of Hyde Park has done a great deal by way of draining the country between Hyde Park hotel and the Calumet within the five years. A large drain has been put in from the west part of the town through State street and what we call the "old town line," between Eighty-seventh and Eighty-eighth streets, which is a mile north of the factory. This has been done within the last three years, and has carried off an immense amount of water from that region, as well as from Washington Heights, while further north there is a drain which empties out of the same mouth as the Eighty-seventh street drain.

What we call the "town-line drain" was originally opened by the county drainage commission, but has been much deepened and improved by the authorities of Hyde Park since. The Calumet Harbor, where the Government have been expending some money, is about a quarter of a mile distant from the fertilizing factory. The opening of streets in that region has also contributed to drain the land.

All this has had the effect of improving very greatly the condition of the country. There are now several square miles of territory, which used to be under water, and used to be so boggy and miry that animals could not cross, which is now rendered dry and loaded teams can pass. The excavations at the mouth of the Calumet River have also lowered the river a foot by affording a direct outlet into the lake. Formerly the

mouth of the river was closed by accretions and sand drifting into it, which backed the water on to the surrounding country. The whole country about Chicago is flat, not only in the direction of these works, but elsewhere.

134 In spring, when the snow thawed off suddenly, there was a large amount of land temporarily overflowed. Since the drainage has been introduced, there is no land between Hyde Park Hotel and about the factory that is permanently overflowed, and the average of the land there since these improvements is as good as anywhere about Chicago. The works of the company are within the limits of Hyde Park, and some four miles north of the southern limits.

When I first became a member of the board of directors, in the fall of 1867, all that portion of the town south of Sixty-third street was a waste—almost entirely—a large portion of it under water a good portion of the year, and comparatively uninhabited. There were a few houses at Ainsworth Station, and a few scattered farm-houses beyond, but in the main it was a desolate region. Since then, besides the drains I have described, we put in macadamized drives; one directly from Chicago, as far as Ninety-fifth street; fifty or sixty houses have been built at a crossing called Cornell, or the watch-factory. A good many houses have gone up to South Chicago, including the new hotel. There is a new church and other buildings which redeem it from the character of a tumble-down-shanty affair. This place, called Cornell or the watch-factory, is about three miles from the fertilizing company's establishment. Almost everything in that country has grown up since 1867, with the exception of a few tumble-down shanties that were then about Ainsworth proper. There were also a few houses towards the lake-shore, just a little northeast from the watch-factory. There was a German settlement of forty or fifty houses, but the whole was an uninhabited waste with the exception of these two.

I presume that the estimate made by the witness this morning who counted the houses is correct. Between the cluster around Ainsworth and Cornell there are only two or three houses, but on the lake-shore there are several new houses being built, as one goes from the

135 factory up towards Hyde Park, scattered along the lake-shore as you proceed north from the factory. There is also a little settlement called Park Side; there are probably thirty or forty houses in this settlement.

There are running through the town of Hyde Park two railroads—the Illinois Central and the Michigan Central—running near together; and from Englewood to South Chicago the Pittsburgh and Fort Wayne and the Michigan Southern running parallel to each other in a straight line. The Baltimore and Ohio and other railroads are also coming in. Over the four roads that I have named, and which run reasonably near this factory, there are from 100 to 140 trains passing a day. About three-fourths of a mile from this factory is a place called Stony Island, which is high land for that country, and nicely located. My present residence is about six miles from the factory, a little east of northwest.

During the past winter we have had some warm thawing weather, and at such times I have smelled the factory at my house. The gases which escape from the chimney of the fertilizing company pervade the whole region, according to the direction of the wind, saying nothing about the effluvia which comes from the masses of animal matter piled up. What we have smelled this winter are the gases from the chimney. It has a very offensive smell, and we get it when the wind is in that direction. Sometimes it creates nausea. I have a pretty good stomach

myself, and can't say it has ever affected me; but I have seen people who complained of the effect. It is worse sometimes when there is hardly any perceptible current of air, and then the stench settles down, like the Angel of Death, over the whole neighborhood. It is a good deal worse when there is a little or no air than when the wind blows strongly;
136 for when it blows strongly, it goes through like a cannon-ball, and there is only a streak; but when there is little or no air stirring it settles down all over the neighborhood. It is very offensive and difficult to describe.

I think Doctor Rauch's location of the winds given is about a fair statement of the truth of the number of times in a year that we would smell this smell. Last summer and the summer before, we were getting this effluvia, and would drive us into the house when we were sitting on the porch. We have also experienced it as it would strike us in the night. I have had frequent interviews with the officers of the Northwestern Fertilizing Company as to their factory, and the substance of them was that they were making improvements and hoped subsequently to make the nuisance less offensive.

Cross-examination:

Every time I have been at the factory of the N.W. Fertilizing Company in warm weather, streams of these offensive liquids—blood, water, or tank-water—have been running off into the marshes.

I live about three miles and a half from the stock-yards, and know that slaughtering is carried on there. We smell smells from the stock-yards, but not as bad as the fertilizing company. I don't know that the establishment of Thompson & Edwards is over there, and that it is a fertilizing company just like the Northwestern. If there is a fertilizing company just like the Northwestern Company, I know no reason why we might not smell the smell of it. I don't say that we didn't smell smells from the stock-yards, but it is not of the magnitude of the other. At various times during the winter, I have noticed smells from the direction of the stock-yards.

I don't know whether, from the 8th to the 18th of January, there was piled up at the stock-yards and within three miles of my house
137 about a thousand tons of offal and blood without any disinfectants being mingled with the pile. I have, however, heard of the fact.

At Kenwood, and where I reside, we are about 2½ miles east of the stock-yards and a mile south.

E. G. CLARK:

I live on Stony Island, about a mile from the Northwestern Fertilizing Company. At my house the stench from the factory is very bad; comes quite frequently, both when the wind blows from the southwest and when it is changing. To the best of my recollection, since they started in February, we have smelled their smell at our house about three times a week. I have frequently smelled the trains as they pass, carrying the material down to the factory. I think they can be smelled half a mile away. The material is carried in box-cars, or tanks—kind of tanks—and in the winter not covered. I think I have observed it uncovered in the summer. The improvement that the United States Government has made at the mouth of the Calumet have drained off the surface of the country, relieving a vast amount of land from the marshy appearance it formerly had, and lowering the Calumet River by this drainage at the bridge, as I have observed, from 16 to 20 inches.

There is a large drain known as the Fort Wayne drain running along

the south side of the Fort Wayne Railroad. Then the Eighty-seventh-street or town-line drain, from Lake Michigan through to State street. This drain is 20 feet at the top, sloping to perhaps 12 feet at the bottom. There is also a drain at 79th street crossing, just below Cornell; and one at Seventy-first street, also at Sixty-seventh street. At Sixty-third street they are putting in another large drain. At Fifty-ninth there is another. These drains have greatly improved the country, taking
138 off the principal portion of the water and making nearly all of it sufficiently dry for dwellings. The population has also materially increased since the drainage. The factory is about three miles south of the south line of the South Park; this park contains about 500 acres. Within a radius of six or seven miles of this factory I should say there were not less than 1,500 houses. Of the various populations within that radius I should set down Hyde Park as containing 4,000 people; Englewood 1,800; Holland settlement, 500; Dalton, 300; a thousand at Ainsworth, or the Calumet; 250 at Cornell. Among the improvements the Government has opened the Calumet River—cutting through the sand—and done a large amount of drainage, and also put in piers. The canal company, also, have graded 15 miles of streets at South Chicago and put in some 8 or 10 miles of open drains, half a mile of plank-road, a mile of gravel-road, and have built a large hotel costing 35,000 dollars. A woolen mill 250 feet in length has been erected, intended to run 100 looms; also a factory for the manufacture of woolen-mill machinery. There is a slough near the Northwestern Fertilizing Company, and I have seen bloody matter flowing off into it. We get the same odors from the smoke-stacks of the Northwestern Fertilizing Company that we used to get when the Union Rendering Company was there. That company left last fall.

Doctor HALL:

I reside at Cornell Crossing; commenced my residence there last September; I am a practicing physician, and know the location of the Northwestern Fertilizing Company's works; they are about three miles southeast. I have observed offensive ordors from the establishment. I noticed it several times this winter since I have been there; one time in particular when I was crossing the prairie to Stony Island ave-
139 nue to visit a patient some time in the month of February. Since the first of February I have perhaps observed it ten or a dozen times. I spend my days in Chicago, and am home nights and mornings. I will give the character and effect of the odor. I would state that I was going over to see a patient at Stony Island avenue, some time in February; it was a damp afternoon with a slight current of air from the southeast. Mr. Mack's wife remarked there was an odor, and I said there was, and started to walk home, and got about a third of the way home, when I was taken with vomiting, and had an attack of cholera morbus, which lasted twelve hours.

Q. Do you attribute it to the odor of this factory?

A. I have no other cause. I judge the effect of this odor more from experience in my own family. I have a son, now four or five years of age, who is delicate, and I have observed that whenever the effluvia comes he would be attacked similarly to myself. He didn't have the cholera morbus, but a profuse diarrhea, and I judge from the effect upon him and myself that it would be detrimental to delicate people. I am about to change my residence on account of it. I have observed this odor at Washington Heights some time in the month of February. The odor there seemed as strong as it did at Cornell. I can't state that I

observed any odor from this factory between September and the first of January.

Cross-examination:

At the time I speak of, when the odor made me sick, I smelled it from three to five hours. I moved down to Cornell last September, and have had two or three attacks of cholera morbus since that time; the first was in February. There were two in February and one in March. I have no other cause to attribute two of these attacks except the
140 smell; the last one I took a violent cold. For three years prior to September I lived at the Douglas House, near the southern limits of the city of Chicago, and sometimes smelled this odor, but it never gave me the cholera morbus. I lived at Cornell from September to January without the smell creating any effect upon me. I think the men who work in the factory are Germans, and men of strong constitutions, and can stand anything of this kind. It does produce disease among the workmen. I attended two men who worked in the factory and were sick; one of them I think had intermittent fever. I treated him about four weeks; cannot remember his name.

Q. Do you say, as a physician, that bilious or intermittent fever is produced by such cause?

A. No, sir.

Q. Then, I understand all you know is that you attended a man who had intermittent fever, and he died?

A. Yes, sir.

Q. And he worked in the factory?

A. Yes, sir; the man I attended in the factory had cholera morbus, and I don't know what caused it; I have no opinion what caused it.

Q. Let us have any others that you attended, if you can state them.

A. I can't do it. The man that I attended, who had cholera morbus and had worked in the factory, had worked there two or three months before the attack came on.

Q. You found a man who worked in the factory four months and had cholera morbus?

A. Yes, sir.

Q. And from that you, as a physician, give it as your opinion that he got it from the smell of the factory?

A. Yes, sir. I attended him in September, and he had been working in the factory May, June, July, and August.

141 Q. If a man worked in the factory during May, June, July, and August, do you think the smell would give him a belly-ache in September?

A. I can't tell exactly in regard to the length of time it would take to give him a belly-ache.

Q. Shouldn't you think, if a man smelled that smell during the four months of the hottest weather, he would either get acclimated to it or die?

A. I can't say.

Q. What is your opinion?

A. I haven't got an opinion on the subject.

S. W. ALLERTON:

My business is packing and slaughtering animals. I have a packing-house here and at New York, and have been engaged in the business for ten years, at Communipaw, New Jersey, and at the stock-yards here. My establishment at Communipaw is probably the largest slaughtering-house in the United States. I have personally killed from to 800,000

hogs a year, 40,000 cattle, 400,000 sheep. We ship all our offal by loading it in a boat and towing it down in the bay. For the last four months we have made a fertilizer of it. We have a process in which we render what we call the tank-stuff and offal around the slaughter-house in a new kind of tank, which gives no more offensive smell than rendered lard or tallow does. We have done this for the last two months. I have been East and examined the process twice; have seen dead hogs and all kinds of offal in the lard-room without any offense more than would be in an ordinaary tank in a slaughtering-house. It used to cost us about a hundred dollars a week to haul the offal down to the bay; now we receive from it about $500. I can't exactly tell the expense of manufacturing this, but possibly $100. I don't know that I can explain the working of this whole process.

142 In the first place there is a jacketted tank with a shaft running through the centre of it, and when the material is inside this tank, that shaft is revolved, which keeps it in motion; and the steam being on the outside of the tank would bring it up to a greater heat than with steam in the inside. In about four hours you can dry material so that it comes out in good condition; we could pack it in this room. All the gases of steam are drawn out of it by a pump, and deodorized and run through a condenser into water, and that water is carried off into the bay. We have had a great deal of difficulty there for the last seven or eight years; been indicted more than a hundred times; been in court all the time until we struck this thing. We have tried everything and every way, and this is the only successful thing we ever got. We rendered tank-stuff made from entrails, lights, and livers from the stock-yards. We rendered everything in this way.

Cross-examination:

The diagram produced is the diagram of this machine, and we have it now in use every day. The system I name is a patent one; it was patented the 15th day of October, 1872. There are none of these machines in operation in the West. Its capacity a day is about eight tons of dry material or twenty-four tons of wet. This machine at Communipaw is the only one I know of in the country. After the steam that passes through this machine is condensed, it runs off into the bay. I can't give the amount of water produced by this condensation. This machine has been in operation at Communipaw about two months, and there is simply one machine. During those two months I have been there twice; I saw it filled with dead hogs, and also with lard; and then I saw it filled with tank-stuff. I was there all day. We consider the machine a success. We consider we can take all the stuff

143 and offal from slaughter-houses, and manufacture it into material, just as we know we can take a live hog and manufacture it into pork; no question about it at all.

WINCHESTER HALL:

I reside in the village of Hyde Park, near the corner of Indiana avenue and Forty-ninth street, west of the Hyde Park Hotel, and a little farther south than the hotel. I am about three miles from the Northwestern Fertilizing Company. I have visited that factory with Mr. Cady, on the 20th day of March, and went through it, making an inspection. What is called tank-stuff was piled up in a pile 200 feet in length, about 30 feet in width at the bottom, and an average depth of four feet. What is called the blood was about 150 feet in length, 50 or 60 in width, and 3 or 4 deep. I have resided where I now reside for four years.

Q. Have you experienced any disagreeable odors from this quarter since you lived where you do?

A. My attention was called particularly to the odor from this particular direction; I noticed it, away last winter, perhaps. This odor I took to be from this factory, from the fact it was in the southeastern direction from my house, and I knew there was nothing over there but that that I supposed would emit such an odor. That was in the month of January last, and it was very offensive. I can't call to mind any other time except that, that it was so marked as that time. On the day we revisited the factory, we didn't smell anything until we were very near the factory, from the fact the wind was blowing in an opposite direction. When we passed in the line of the smell, where the smoke was coming, it was very offensive. The smell I speak of at my house, I think, was in the month of January, but may be it was in February. I recol-
144 lect distinctly the odor, but don't recollect the date. My house is about a mile farther west than Mr. Cady's, and a mile farther south; and the wind, to waft this odor to my house, must be more towards the east. It is about a southeasterly direction from the factory to my house.

Cross-examination:

My house is about a mile west of the Hyde Park Hotel, and about a quarter of a mile north. I am within a mile of the stock-yards, and southeast from there.

Q. I will ask you whether you have smelled repeatedly smells from the stock-yards.

A. I have; whenever the wind is from that direction we get an odor from there. For two years prior to February I may have smelled this smell, but my attention has not been called to it. The time I mean is the only time my attention has been called to it in two years.

K. H. KENT:

I reside in South Chicago, in the village of Hyde Park; I am engaged in the manufacture of woolen machinery, and have been there about ten years. I am working between twenty and twenty-six hands in my business, and am about ¼ or ⅜ of a mile northwest of the factory, or the factory southeast from us. I have smelled disagreeable smells from this factory. It has a sort of nauseating smell—very disagreeable, and would not be endured if a man could get away from it. It has a bad effect upon my health, I think, and men are inclined to leave me on that account. I have had trouble in getting men on that account; have had several cases where they left me and gave that as a reason. I have five or six who have left me on this account.

GEORGE R. EDWARDS:

145 I keep a hotel at South Chicago, and have done so since the 5th of July, 1871; the works of the Northwestern Fertilizing Company are about half a mile nearly south from us. We smell the effluvia at our house as often as the wind comes from the direction of the factory. The stench is very offensive and will keep a person awake nights in warm weather. It is not so bad in the winter, and has on two or three occasions nauseated me. It has also affected some of the inmates of my house in the summer. It is the worst smell I ever smelled. The nearest smell I ever smelled comparing with it was burning horses and men at the battle of the Wilderness. The odor from the factory is occasioned by the smoke and steam that comes from the smoke-stack.

Q. You don't smell it at all if the wind comes from the north?—A. Not at all.

Q. Or from any other point except from the factory to your house?—A. That is all.

Q. When it comes from the factory to your house, in winter or summer, if the factory is running, you smell it?

A. Yes, sir.

Q. Then, if you knew the number of days the wind was in the direction from the factory to your house, that would settle the question how often you smelled this thing, wouldn't it?

A. I think it would. I live about half a mile from the factory, and nearly north.

OSCAR F. GIER:

I have been selling goods at Ainsworth since 1871, and am located less than a mile, and nearly north, from the factory. Whenever the wind blows directly from the factory the smell is very bad. It
146 goes through the house and all the rooms; most of them, at any rate; and not unfrequently in warm weather we have been awaked up in the night by it. We are perhaps as badly exposed as any locality in the village. Sometimes, when we sit down to tea, especially when the weather is warm, it troubles us seriously; my wife, on one or two occasions, has been nauseated by it.

G. A. TIFFENEY:

I am in the railroad business at Chicago, and make my home at the hotel. The hotel stands northwest from the factory, and is half a mile away. When we have the wind so as to smell this at all, it is very bad; it is a sort of a compound rotten stench. I can't tell how often we smell it; we smell it as often as the wind comes from the factory. The factory injures our business, because guests won't stay there. I have known my wife to become nauseated and sick at the stomach from the effects of it. It has a very penetrating smell, and attaches to people's clothes. You can always tell a man when he comes from the factory by the smell that he bears about his clothes, and we have to be careful not to allow such people to step in the dining-rooms at such times. Last Sunday a party came down and went over to the factory, and when they came back we smelled their clothes very plainly.

D. H. HORN:

I am justice of the peace at present of the village of Hyde Park. There were five persons brought before me on the 8th and 9th of January, upon a charge under the ordinance referred to, for bringing offal into the village of Hyde Park, and were fined $50 each and costs. A gentleman tried for an appeal, and I told him I was not acquainted with him or his authority to appear in court, as he acknowledged he was not an attorney. He kept on talking about an appeal until
147 one of the prisoners asked to have the case appealed. I told him he had done only one thing to prevent his taking an appeal; he had confessed, and I had entered judgment against him as on his own confession, and there was no appeal. And I also announced that the parties would have to stand committed until the fines and costs were made, and turned them over to the captain of police, and he collected the fine.

On the 31st of January I visited the factory. The men were shoveling and handling offal and blood, and I walked around the pile and found traces of bloody matter running off from the piles towards the

river. I read the complaint to the men, and they confessed to have taken the offal into the town, and I regarded that as a confession of judgment. The streams of blood that I speak of running off from the piles I didn't trace down to the river, but I am certain that there were streams flowing off from the piles. I was there about half an hour between 11 and 12 o'clock. Early in the morning, that day, it was cold, about or below freezing-point. In the afternoon it went back, and was snowing, but in the middle of the day it was a little warmer than freezing.

DAVID MCDOUGAL:

I am deputy collector of internal revenue at South Chicago, and have been there since 1871. I have a family and live about 80 or 90 rods from the Northwestern Fertilizing Company, in a northerly direction. I visited the Northwestern Fertilizing Company with Mr. Horne, justice of the peace of Hyde Park, the 31st of January. I saw drainage flowing off into the marsh from the piles of blood, but did not observe it especially from the offal. What was draining off was blood that had coagulated, and looked as if it had been frozen. The drainage flowed out from under the pile. It was blood and water, I should judge,
148 with no particular smell from it. There is a smell about the establishment, and it is a stinking, filthy place. I smelled the establishment at my place two or three times a week. It is a very offensive and nauseating, sickening smell.

I have six in my family besides myself. The youngest is three years old. About the factory the marshes are filled up with animal matter, and in the warm weather it is very offensive. The Union Rendering Company left Ainsworth in November. Since then there has been no great improvement, but an offensive smell all the time. These works, when they were there, were about 30 rods from the Northwestern Fertilizing Company. There is left about the Union Rendering Company animal matter which has very nearly become incorporated with the soil. The soil there is a sandy loom or black sand, and the material left there by the Union Rendering Company is so far incorporated into the soil as not to smell.

JOHN GAUGHAN:

I reside in South Chicago, formerly Ainsworth, a little east of north from the factory. My family, consisting of my wife, self, and five children, have resided in that immediate neighborhood since 1835. I own town-lot 12 in block 64, and have two stores with dwellings over them, besides my homestead. I value my property at $10,000, and there is no encumbrance upon it. I didn't often visit the factory, for there is nothing very enticing there. I went down there the next morning after the fire, the first of January. The buildings were entirely destroyed. Nothing was left but the smoke-stack and the animal matter. I tried to walk around the establishment, between that and the river, but got my feet in the blood and gave it up. This blood was coming from underneath the heaps, and running towards the river-side into the low ground. There were heaps of dried bones there. The place
149 looked fearfully and smelled very badly. I have not visited it since. I also visited the place last August. At our house we get odors from the chimney-stack. We are governed by the wind in this respect pretty much. When the air or current of wind is from that direction, we should get away from it if we could. It is almost unendurable. The worst time is when there is sultry, warm weather, with little air. Under such circumstances it causes nausea and people

can't eat; makes them sick. My wife and eldest son and eldest daughter were afflicted in this manner.

C. K. COTES:

I am at present in charge of the harbor improvements of South Chicago. We have had two appropriations from the Government of $50,000 each, and one of $40,000. I have a family, consisting of my wife and little girl, sister of my wife, and her father and mother, and reside north from the Fertilizing Company, or a little east of north. My dwelling is half a mile from the factory. Whenever the wind is in the right direction we get the odors from it, and also whenever there is very little wind and the atmosphere causes it to settle. I can't say whether we get the smell from the piles around; it is mostly from the smoke-stack and the steam escaping from the pipe. These smells affect the members of my family more than they do me. I suppose I have got used to it; makes my wife very uncomfortable, sometimes nearly sick, and so with the rest of the family. These works at the mouth of the harbour have a material effect in lowering the Calumet River, opening its mouth and affording drainage to all the surrounding country.

Mr. SHERMAN:

I am a practicing attorney, and reside at Kenwood, in the vil-
150 lage of Hyde Park; have resided there since 1859, on the lake-shore. The factory is southwest from where I live. I have noticed those odors, and supposed they came from there; have recognized them as the same odors whenever they have come. They are worse when there is a light wind from that direction and a heavy atmosphere. I was employed in 1867 by the town of Hyde Park to obtain an amendment of their charter. The object was to get general police powers throughout the town over nuisances, and particularly over the Union Rendering Company and the Northwestern Fertilizing Company. It was Mr. Rawlston and Mr. O. S. Hough represented the Union Rendering Company. We came to an understanding about the matter, and it was reduced to writing, which writing was burned in the October fire, in my office. The substance of this writing, to the best of my recollection, was that the town of Hyde Park should have police powers throughout the town, but that it should not exercise them as against the Northwestern Fertilizing Company until the end of two years. It was put in the way of a proviso.

Q. A proviso of what?

A. A proviso to the general police powers to be exercised by the town. I don't know of having any authority from the town of Hyde Park except to go to Springfield and get the charter. I know of no entry upon the records giving me authority to negotiate with Mr. Rawlston. I had letters furnished me of what purported to be the action of the board of trustees. That amended charter contained provisions in reference to the exercise of police regulations by the town of Hyde Park, and there was a proviso inserted into it that these regulations should not attach in this Fertilizing Company for the term of two years. This was not put into the bill until that agreement was made; and the agreement to put it into the bill was reduced to writing; and the agreement was
151 that the provision being put into the bill in the form of a proviso, opposition should be withdrawn and the bill passed.

Q. Was there anything else in that agreement except that the provision might be put into the bill, and being thus amended that the bill should pass?

A. I don't think there was in substance anything else.

ELLIOT ANTHONY:

I reside in Hyde Park, on the South Park Boulevard, between 48th and 49th streets; and have resided there since the 8th day of October, 1871. I am acquainted with the locality known as Ainsworth, and have been for 20 years. I have owned property in the immediate site of South Chicago since 1856. I visited the works of the Northwestern Fertilizing Company for the last time last fall, about in October. I was a stockholder in the Union Rendering Company. They were driven out from Hyde Park by conviction. They moved several miles south of Ainsworth, into the town of Thornton. The place of their location is near the Calumet River. I have a general knowledge of the whole country south of the county-line. There are south of Ainsworth, in Cook County, the towns of Calumet, Thornton, Bloom, Lamont, Palos, Orland, Bremen, and Rich—all south of it, and all south of the town-line between 37th and 38th, and these towns are traversed by railroads leading into Chicago. There is the Pittsburgh and Fort Wayne, Michigan Southern, Illinois Central, Michigan Central, Chicago and Great Eastern, Chicago, Danville and Vincennes—all go through and all pass through these towns. The population is very scarce, commencing from a little south of the township 38; and there are spaces where for many miles there are no inhabitants; for instance, as you go on the old State road from South Chicago to Michigan City, all east of that road there are not more than a
152 dozen houses. I have been over that within the last year. I speak now of that portion of the county which lies east of the Calumet Lake, taking in Wolf Lake, Hyde Lake, and all that region. You take it west of Calumet Lake, and there are vast regions there where there are no inhabitants for miles; for instance, take it south of Kensington, in that region, and in many places in the town of Thornton. The Chicago & Rock Island Road passes through this locality and a part of Orland.

The witness then describes the system of drainage and improvements which have occurred in the village of Hyde Park within the last four or five years in a manner similar to the other witnesses.

The improvements described have enhanced the value of real estate from one hundred to three hundred per cent. When these establishments—the Northwestern Fertilizing Company and the Union Rendering Company—were first started down at Ainsworth, they were exceedingly filthy, the animal matter being thrown into the slough, and scattered all around the premises, so you could not walk anywhere without getting your feet in it. I have approached these factories from all directions, and it can be smelled from whatever direction you approach the factory, if the wind brings the scent from the factory, wherever you may be. It has a very intolerable, offensive, carrion smell.

At my house, which is on the boulevards, substantially west from the Hyde Park Hotel, I smelled it perhaps once a fortnight. My house sets up pretty high, and I can smell it distinctly. I can smell it perceptibly, and it has a very offensive smell. The distance from my house to the factory is about six miles, and in coming, the odors pass directly over the south parks.

HAMILTON BOGUE:

I reside on Greenwood avenue, in the village of Hyde Park, south
153 of Forty-eighth street, and at what we call Kenwood, three-quarters of a mile north and half a mile west of the Hyde Park Hotel. We smell the fertilizing company at our house. I think we smell it two or three times a month. We got so in the habit of shutting it out of the

house, we are seldom disturbed now to find it coming in, so I can't say that it makes us sick. If we breathed it long enough it would.

R. N. DAY:

I reside at Blue Island, and have lived there twenty-one years. I have smelled unpleasant smells frequently until the last winter. We have smelled it frequently during the last winter. During this last winter I have noticed it but a few times. The smell was very offensive when it came. In a direct line, I think it is ten or twelve miles to Ainsworth. I don't know when the Union Rendering Company left Ainsworth, but, assuming that they left in November, I don't recollect of smelling this smell but a few times since that.

JAMES H. BOWEN:

I am a stockholder in the Chicago and Calumet Canal and Dock Company, and have known the locality of South Chicago about four years. I also know the works of the Northwestern Fertilizing Company. During the past three years extensive improvements have been made in that vicinity, and over ten miles of streets have been graded, ditches thrown up, ground prepared for roads, and a thousand feet of dockage constructed from the bank of the river, filling in considerable portions of country, and refilling it in by the reduction of sand-hills on the lake-shore. Also a considerable expenditure in dredging, which becomes necessary in opening the mouth of the Calumet River, in connection with works done by the United States Government.

154 The prevailing winds and currents tending toward the shore had stopped up the mouth of the Calumet River, which caused, in a great measure, the overflowing of a large region of country about the Calumet. This obstruction at the mouth of the river was so great that it had driven the channel of the river $\frac{1}{2}$ to $\frac{3}{4}$ of a mile south of its natural channel. The effort to cut through this channel and restore the direction of its natural mouth commenced in 1860. The result of the work was the opening of the channel at the mouth to the width of about 60 feet. About this time the Government engineer made a survey of the situation, and upon a report to the War Department, supported by a petition of the underwriters and vessel-owners, captains of vessels, owners of tugs, setting forth the importance of the improvement at the mouth of the river as a harbor of refuge, the Government appropriated $50,000 for the improvement of the harbor. Since then the Government has completed a pier for six or seven hundred feet; also a north pier of two thousand feet, which is a guard to the entrance of the harbor, and prevents future obstructions by the deposit of sand. The channel thus established is 300 feet wide. Besides this there is a crib-work and a thousand feet of piling on the south side of the channel. Dredging has also been done in connection with this piling and construction of piers, so that at the close of last fall soundings were taken in the channel which showed a depth of about 100 feet of water, and allowing vessels drawing 10 feet to pass into the river. The accommodation of vessels after the harbor is completed will be superior to the accommodation of vessels coming into the city of Chicago. The river is, on an average, 250 feet wide. I have sounded the stream, and know its depths for a distance of fully eleven miles. The width of the stream and the volume of water is sufficient for vessels drawing 14½
155 feet. The entrance at the mouth of the river and up to the Great Eastern Crossing is a distance of 12 miles. The banks are well defined, and the largest propellers could pass up the whole dis.

tance. In addition to this, Lake Calumet connects with this river by a channel varying from 2½ to 5 feet in depth, passing into the lake. There is a sheet of water a mile and a half in width, three miles long, just available for commercial purposes, with a very moderate expenditure, by forming cribs and docks. The river and the lake, which by labor can be greatly improved, affords accommodations for vessels and business of a very high character. The facilities of this harbor have been known to the Government, by reports now on file in the War Department, for many years, and an expenditure of $10,000 in a light-house and other facilities had been made prior to the operations of the Calumet and Dock Company.

During the year of 1871 there was about 130 arrivals of vessels at that point, carrying cargos of lumber and other material. The works of the Northwestern Fertilizing Company are from ½ to ⅔ of a mile from the light-house at the mouth of the river. When I first turned my attention to this country there were very few inhabitants, but the improvements and the number of inhabitants have been constantly and rapidly increasing. The general powers of the Calumet and Dock Company provided for the construction of a canal from or near the mouth of the Calumet River to the south branch of the Chicago River or Illinois and Michigan Canal, with further power controlling the tolls, and use of the canal, and the construction of slips and docks, and other facilities of commercial character. In addition, the charter gives the company power to purchase, hold, improve, and sell real estate, as well as personal property.

Since my connection with the Calumet and Dock Company I
156 have spent a large portion of my time in the region of Calumet, and have passed around the Northwestern Fertilizing Company in every direction—north, south, east, and west. I have watched it from all points of the compass, know its character, have seen the arrival of its supplies, and the general disposition made of them. The gases which escape from the building, and the smoke from the flues of the chimney, as well as escaping through other avenues, are of the most offensive character possible. Beyond that, the drainings from the establishment, on both sides, has been marked during all the time I have spoken of. Particles of animal matter are also about the building, so that it was impossible to pass around about the building without stepping into it and becoming besmeared with it.

I was at the establishment on the 31st day of January last. There was then very large accumulations of blood, tank-offal, residuum of the tank operations, piled up right and left of the railroad track. These piles are sloping from the centre, and the drainage of filthy masses finds its way into the sloughs adjoining the factory and into the river. The drainage which I have spoken of is independent of the Union Rendering Company, they having not thrown anything into the marshes for a long time. The Union Rendering Company's works were left by them in a good condition, considering the character of the works; and the removal of some animal matter, with some small amount of attention, will remove all nuisance connected with them. No smell can, at the present time, be distinguished any considerable distance from the buildings.

The works of the Northwestern Fertilizing Company are offensive to passengers upon the Michigan Central, Pittsburgh & Fort Wayne, and Michigan Southern Railroads, that pass from that vicinity to Hyde Park.

Also to persons visiting there, or having any business connec-
157 tions, whenever the wind will blow the effluvia from the factory to the particular point which the party happens to occupy.

Cross-examination:

I commenced visiting Hyde Park in 1868. The improvements spoken of were beginning to be inaugurated, and the population was just beginning to show itself, but there has been rapid improvement since that time. About 1857 lands began to have a market from $50 to $100 an acre in that vicinity. The Calumet and Dock Company is organized with power to buy and sell real estate, and has about 5,000 of the acres in that vicinity, bought by the charter authorizing them to trade in lands as a corporation. Their first purchases were in 1869, and the costs of their purchases vary from $200 to $1,000 per acre; and these purchases run up the price of land from $3,000 to $4,000 an acre. Our purchases were, many of them, at $75, $150, $400, and $750, and the average cost is little less than $400 an acre. The whole quantity purchased is about $5,500, and $2,200,000 will cover the cost of the purchase of the land with the cost of the improvements which have been put upon it by the company.

Q. Do you mean to say that the Calumet and Dock Company have paid out $1,725,000 for land?

A. Those are about the figures. The whole region of country there, since 1870, has advanced in value from 100 to 300 per cent.

E. S. WILLIAMS:

I reside at Kenwood, on 47th street. The factory is about six miles from my residence. I observed odors coming from that direction which I assume to be from the factory; they come at intervals, depending upon the state of the wind; sometimes not in two or three weeks, and
158 sometimes two or three times in a week. These odors are exceedingly offensive in character, so much so that it is almost impossible to be exposed to the odors with any degree of comfort.

JAMES P. ROOT:

I reside near 55th street in Hyde Park, southwest from the hotel, and from my house to the Northwestern Fertilizing Company is in a southeasterly direction; distance about five miles.

I smell odors at my house coming from that direction which are very offensive. I have been near the factory and found odors were very bad there.

E. H. ELLIOT:

I am general western agent of the Kansas and Pacific Railroad, and have had occasion frequently to pass through Ainsworth on the cars. After passing along the Illinois Central crossing, coming east, a very offensive odor comes into the car, which lasts two or three and sometimes four minutes; the cars retain the odor for a considerable length of time; I should judge five or six miles.

M. P. GRAY:

I reside in Hyde Park and have a family. I am about five miles from the Northwestern Fertilizing Company. I smell odors at my house which are very unpleasant. Sometimes two or three times a week; sometimes twice or three times a month. The times I smell it is when the wind is blowing from the south side.

A. D. WALDRON:

I am a coal-dealer in Chicago, Illinois, and live at Kenwood. I am six miles from the Northwestern Fertilizing Company, it being in a southeasterly direction from my house. I have smelled odors supposed to come from that factory. They are very offensive.

159 JACOB J. STORER:

I am acquainted with the various processes used for reducing offal and making of it a fertilizer. I am also an inventor of an apparatus for that purpose. I have a machine in operation at the stock-yards, which has been in operation a day or two; the cylinder is four feet in diameter, twenty and a half feet long, lined with fire-brick. There is a fire placed at one end of the cylinder and a smoke-stack at the other. The fire is made of ground and pulverized coal, which is blown through the cylinder and makes an intense heat; and in this way I get a temperature of 2,500 degrees. When the cylinder has become heated we feed into this cylinder containing the fire eight tons of offal to the hour, no matter how wet it may be as it comes from the packing-houses, or even if it be blood itself. Out of the eight tons we get five or six tons not consumed, which is a fertilizer. The smoke-stack is built about thirty feet high, with a platform around it. The fertilizer thus produced, analyzed by Charles Jackson, of Boston, gives a larger proportion of ammonia than any fertilizer I know of. I have tested this machine enough to know that it will relieve the packing-houses, and will dispose of their offal without offensive odors. Four or five of those machines would answer that purpose. The expense of this machine with the buildings I have constructed is about $5,000. I have a patent for it. I have four patents covering the entire thing, and I propose to introduce these machines here. I also know the Hoyle machine. This is about twelve feet long, four feet in diameter, cylindrical in form, with an annular space between the two. It is a double cylinder, and steam is let into this annular space and ejected, as we call it, out. It has 60 pounds pressure, and steam is let through the hollow shaft of the machine, and then thrown off at right angles out of
160 the gas-pipe into the body of the machine itself. Also 60 pounds pressure and an inch and a half pipe carrying the steam into the cylinder. In that machine they put in the blood and offal together. This was at Mr. North's in Boston, and their product was about one ton in three hours. I have never seen the machine work. At the time I saw it they were taking the product out, and it seemed to be a fine fertilizer. The gases produced by making the fertilizer in this Hoyle machine are burned. In my machine, which I have described, I have put through it successfully the wet tank-stuff as quick as it comes from the tanks.

Cross-examination:

Under my process, we put the livers, lights, and entrails through the machine, and dry it sufficiently to make fuel of it, and then burn that portion of the tank-stuff for fuel. With my machine I have utilized about 50 tons of material in this city. Before coming to this city I ran it one hour in Boston. It has never ran anywhere else, or at any other times; it was patented about two months ago. The last patent was taken out about two weeks ago. The machine which I have described is at the stock-yards; there is but one in the city, and the 50 tons dried in it have been dried in the stock-yards. The machine has been tested except as to the 50 tons, and in testing it, it has been run from 10 to 12 hours—perhaps a little more. I had a machine at Reid & Sherwin's; it was in operation there about a fortnight, and was taken down—that was last September; that was a machine different from my present one. I have offered the right to my machine for Cook County for $500,000. I would say now that I would take $300,000 in cash for the right to that county. I invented this machine in Boston. I

never saw any machine like the one I have. Part of the gases in my machine are destroyed or consumed in the cylinder and
161 the remainder at the entrance of the smoke-stack. I have a fire at one end of my cylinder, and the smoke-stack at the other; also machinery back of the fire, at the entrance of the cylinder, to blow over the fire, and into the cylinder, the pulverized charcoal. This pulverized charcoal, as it passes over the fire, ignites and goes into the cylinder as a flame of intense heat. The material is thrown into the same end of the cylinder that the flame of the pulverized charcoal passes in it. The cylinder revolves at the rate of four revolutions a minute, with an inclination of one inch to a foot; and as it revolves, the material is agitated and passes towards the opposite end. The material passes through this cylinder in the space of about 10 minutes, and it is through this material, agitated by the revolution of the cylinder, that the flame of heat passes in coming in immediate contact with it; the flame of heat is blown so hard in the cylinder that it frequently passes clean through it. The material is moved through the cylinder towards the discharging end simply by the revolutions of the cylinder and its inclination. This heat, although it comes in immediate contact with the material, and passes along with it, does not consume the material; in fact, the material cannot be consumed as long as water is in it. The effect upon the material in passing through my machine is that about 8 per cent. of the water is left in it, and the material is not burned. The material, when it passes in with the flame, is in a pulpy state, and varies in size from the size of a man's hand to infinitely small pieces.

Q. Now, how do you explain that you can take pieces of animal matter infinitely small and carry these pieces 25 or 30 feet through a heat of 2,500 degrees?

A. I didn't say the heat was 2,500 degrees in the cylinder.

Q. What did you say?

162 A. I said it was a jet of pulverized fuel. I didn't say the heat in the cylinder. The material strikes the flame at about 2,500 degrees, but I don't know the intensity after it gets into the cylinder.

Q. Now, if you take a piece of animal matter the size of a bead or a pin, and throw it into a flame of 2,500 degrees of heat, what becomes of it—does it simply dry up?

A. That depends upon how much water it contains.

Q. Suppose you get a piece of material as big as a strawberry, or as big as a pea that you can imagine can get into it, and throw it into the heat—what becomes of it?

A. I tried the experiment, but throwing in the material in the way I have described, and varying in size with the pieces I have described, it would not burn up. In fact, I don't think any of it would burn up in passing through the machine. The material is put in by a man standing at the end where the flame enters, and shovels it in; and notwithstanding it enters with the flame and passes along with it, it does not consume it. Any kind of the tank-stuff, whether wet or dry, may be put into the machine immediately when it comes from the tanks. The material is fed into the machine at the rate of 18 to 20 shovelfulls to the minute. I worked on this machine three or four months. My first experience with animal matter was in the month of August last in Boston. I am a mechanical engineer and an inventor. I have invented 49 patents in the United States. These patents covered a variety of industries or machines, in mining and working iron ores.

These inventions have in the main been furnaces for working ores,

melting steel, puddling iron, heating in working gold ores, copper, silver, and lead, and zinc. These cover six or seven different kinds of furnaces. I have also invented pulverizers for pulverizing ores, and
163 any material that is now ground by mill-stones, paint-stuff, and so forth; have several patents on these pulverizers. Then a machine for pulverizing fertilizers. I never had any experience in handling animal matter except what experience I have had here in the last three or four months; and the idea of making the invention in this line first occurred to me in last August. I never had any experience in that line before. The first machine, such as I have described, was made in South Boston, and run there about an hour. The next machine was set up at Reid & Sherwin's last September, and contained some mechanical changes. In reference to the machine at Reid & Sherwin's, the furnace was torn down, and it is not now in use. It was worked at Reid & Sherwin's about two weeks, and consumed about one ton weight of offal to the hour. It produced a good fertilizer, and there was no smell.

I spoke of having used the soft tank-stuff after partially dried, as fuel. The way this is done is by blowing it into the cylinder with the pulverized flame. All the steam of the water that is in the material is vaporized by the heat as it goes into the machine, and all passes through the chimney stack into the air.

L. S. BRAINARD:

I am an attorney, and reside at Kenwood, corner of Woodlawn avenue and Thirty-eighth street, and practice in Chicago. I know the location of the Northwestern Fertilizing Company, and was there in the latter part of January. There was a large mass of material, twelve or fifteen feet high, and running in long rows. There was a drainage from these piles running along a declivity into the river. This drainage flowed over the ground, and we could not pass along without soiling our feet with it. The drainage from the piles also passes into the marshes.

At my residence at Kenwood I observed odors from this establish-
164 ment; sometimes it is perfectly intolerable. I have also observed it at Washington Heights and South Kenwood. I have observed these at my house since the 31st day of January on a number of occasions.

JAMES H. BOWEN:

I was acquainted with the works of the Union Rendering Company. They put the animals into the tank, which was substantially steam-tight, giving vent, however, to a trifling escape of condensed steam, and in that way rendered the lard, tallow, and other material from the carcasses of hogs, horses, or whatever it might be handling. After the steaming process was completed, it was let off, and the water in the tank withdrawn. The grease was skimmed off the surface, and the material taken out. The steam was generated by a boiler having smoke-stack independent of the tank where the material was, and the vapors arising from the animal matter, steamed, did not pass through the smoke-stack into the air. The tank in which the animal matter was steamed was kept as tight as practicable, but there was a vent to it to prevent its explosion. The principal offensiveness of the establishment consisted in the exposure for a considerable time of the dead animals piled up—frozen, perhaps, in the first place, and then thawed and decaying afterwards, or accumulating beyond their capacity to render, and the scattering of these animals about their establishment in a putrid and rotten condition.

In this way the establishment was as offensive as it is possible to be

Also there was an offensiveness connected with the draining of the water off from the tanks, and in the removal of the residuum. The smoke from the smoke-stack of the boiler was no more offensive than from a planing-mill. The residuum, after their rendering, was taken to the works of the Northwestern Fertalizing Company, and converted into an agricultural fertilizer.

165 *Rebuttal evidence of the plaintiff.*

PETER HUNT:

I am a butcher, and live in South Chicago, a little more than a quarter of a mile from the works of the company, and in the course of my business I cut ice from the Calumet River about eighty rods from the factory, and below. The ice is nice, clear ice, and, so far as I could see, the river is not contaminated.

ALFRED EDWARDS:

I am in the *the* fertilizing business, and have a machine. I know Storer's machine, and have seen it. I saw it at Reid & Sherwin's, and at what is called the stock-yards. You can't smell his machine immediately near it, but you want to go four or five blocks away to smell the institution, and there you can't but smell it. It has the smell of animal matter burned. I didn't hear Mr. Storer's testimony, but supposing his machine to be twenty-five feet long, four feet in diameter, and a fire created by blowing or igniting pulverized coal into it, at a temperature of 2,500 degrees, and animal matter put in connection with the heat in lumps the size of one's hand down to the size of a pea, the smell derived will be burned instantly, and what is not burned up is partially burned up.

I have had three years' experience in this business. I was at Storer's machine, and examined his material after it came through. It is the same as when it goes into the machine, except it is part burned; and his principle is that of taking the animal matter and throwing it into the fire and partly burning it up. It is impossible to burn the animal matter in that way and not create a smell which will pass into the atmosphere. It is not possible to utilize animal matter and
166 make a fertilizer of it, and prevent offensive smells except by condensing and destroying the gases which are inevitably generated in the process; and it can't be done by Storer's process any more than you can throw an old shoe into the fire and prevent a smell coming from it.

I have an invention and machine of my own—two or three of them. The first I put up and abandoned, because I could not get rid of the peculiar smell that passes off with the heat, and I have been experimenting ever since, now about three years. During this time I have expended a good many thousand dollars, and have made it a specialty. I think I have succeeded. The principle upon which I am operating is to condense the vapors, separate the gas from the moisture therein, and burn the gas. I have no establishment yet in practical operation, but am putting one up now; and the particular process I have introduced has not been tested by experience, but I believe it would be successful. I am putting my establishment up at Reid & Sherwin's, where Storer's establishment was; his has been taken down, and is not in use; we are putting up one in the room of it; his was a perfect failure.

Cross examination:

I am not of the firm of Edwards & Thompson, which has been mentioned in this case; my firm is the Union Frying Company; nor am I

the Mr. Edwards who bought a machine of the Northwestern Fertilizing Company. I have been at Communipaw and seen there what is called the jacketed cylinder machine for the purpose of utilizing animal matter. This was about a couple of months ago, perhaps six weeks. The cylinder was not at work just at the time I was there. It is jacketed the same as my one was, and their whole apparatus is similar to mine. The most I have been able to do with my machine is two and a half or three tons in a day's work of ten hours

167 CHARLES LYNCH:

I am night watchman for the Northwestern Fertilizing Company, and have occupied that position for five years; during the night I walk around the establishment and sheds. I am familiar with the premises, and know the piles of tank-offal and blood, and how they are piled up, and see them every day. There is no drainage from them into the stream of the Calumet River or into the marshes. I am around these piles every night—all night long, walking backwards and forwards every half hour. There are no streams running from them that one would step his foot into in passing, except a stream from some snow melting. The Northwestern Fertilizing Company have not within the last two years deposited any animal matter in any of the sloughs or marshes. I have lived about there all the time. The Calumet River is pure. I have drunk water from it all the winter, and so have the men who work in the factory; it is pure, good water.

I knew the Union Rendering Company; they rendered dead hogs, horses, dogs, rats, cats, and everything they could get. As these dead animals arrived there from the city, they were unloaded upon a platform, or thrown upon the ground when the platform was full, and lay there scattered around upon the ground until such time as they used them. Some of them were in a very bad condition, and some good. The tank in which the animals were made had a hole in the top about two feet square. The animals were cut up and dropped down through this hole; then, after they were steamed, this plug was taken out, and the steam which had been in the tank escaped into the atmosphere. The animals, when put in, were in all the various stages of decomposition, and when the steam came out, either when it escaped into the atmosphere, while they were steaming in the tanks, or after it was let out, it smelled
168 badly. After the animals had been cut up and steamed in this tank and the steam had been let off, the water was drawn off into a vat and the grease skimmed off from the top of it. This was water in which the animal matter had been steamed, and smelled badly as it became exposed to the air. After being skimmed in the vat, the water was let off into a drain, and by means of this drain was drained into the Calumet River. I have lived seven years near this factory, and have a family. The health of my family has always been good.

Cross-examination:

My family consist of four girls and one boy; one 19 and another 17, and so they run down; the youngest is nine years old. I have been 24 years in the country.

Dr. H. A. JOHNSON:

I am a physician and surgeon of 20 years' standing in Chicago, and am of the faculty of the Chicago College. The gases arising from a business such as the Northwestern Fertilizing Company, as it has been described, is deleterious to human life generally. It is believed they tend

to produce a class of disease, of which typhoid fever is an example. In proportion as these gases are incorporated into the atmosphere, the liver, to some extent, and perhaps the general health, becomes affected and indirectly predisposes to disease. I am not able to say whether they directly do so. In reference to cholera, I would say that, like any other cause which enfeebles the general capacity for resistance, the effect of these gases is probably unfavorable. I don't know whether we have any facts to show that it has any direct bearing upon this disease. It is generally supposed that anything which impairs the general vitality predisposes the system to attacks of cholera, and to some extent these gases would tend to impair the general vitality of the system, according to the amount of them in the atmosphere.

169 I have, to some extent, examined the question of processes in this country and Europe, in reference to condensing and destroying the noxious gases arising from the manufacture of animal matter. There has been great improvements in the last 50 years in the method by which animal matter is converted into useful products, and I think the improvements have been carried on and perfected from year to year. The first efforts, I believe made in Paris, for the prevention of the escape of these gases in large quantities, was by the improved construction of the localities, surrounding them with walls, paving them, keeping them clean, to which was added various processes of condensing them; carrying them through furnaces and chimneys, which processes have been carried on to greater perfection up to the present time. By these improvements, the amount of gases escaping into the atmosphere, in connection with these manufactures, has been very much lessened, and this is a result which is desired by the manufacturers themselves, because these gases are made up largely of the useful products which they are endeavoring to preserve. Every atom of ammonia that escapes is so much lost absolutely to the value of the product, and the ingenuity of man and the appliances of science have been directed to the discovery of means for the preservation of these gases, both as a sanitary measure and as a result desirable for the purposes of profit. I have never had much occasion to observe in reference to the sanitary condition of men actually working about establishments of this kind. I know something of butchers—they are healthy, as I understand. If it is true that men who work in establishments like the Northwestern Fertilizing, being constantly exposed to the odors, are healthy, strong, robust men, that fact ought to be considered in making up an opinion as to the effect of these gases upon human health.

170 Q. I will ask you whether the degree of injurious effect is so great that smelling these noxious vapors for a short time would be apt to superinduce fevers or other disease, or whether deleterious consequences are not the effects of being constantly under its influence? For instance, supposing the Northwestern Fertilizing Company, in the operations of its factory, throw vapors into the air which contained gasses of putrid animals; and once in ten days it strikes houses five miles off for a few hours, and then doesn't make its appearance again for ten days more, would there be anything in that that would affect health, in your opinion?

A. Without being able to say distinctly there would be nothing in it, I think the influence would be very small, and perhaps hardly appreciable.

Q. Supposing gases arising from the Northwestern Fertilizing establishment to be carried by the wind from the chimney-stacks one day in one direction, and another day in another, varying throughout the year,

and carrying the offensive odors, so as to make them perceptible for five or six miles around, would this produce any appreciable effect upon the health of the country?

A. I should hardly feel like expressing an opinion, because I don't know the amount of gases that are discharged into the air, nor the amount of the accumulations, nor the condition of them.

Q. Supposing these gases come to a man's house four or five miles off, and for a few hours, and are offensive, so that he notices it, and the next day it is gone, coming back again in five or six, or ten days, for three or four hours, and enough to make him notice it and shut his windows, and then not coming again for 8 or 10 days, do you consider that that would be enough to breed typhoid fever?

171 A. I should hardly think it would have any appreciable effect when present at such intervals of time. I should hardly expect it to produce any sensible effect.

LOUIS WAHL:

Our establishment, when we owned what is now the Northwestern Fertilizing Company, could be smelled 15 or 20 miles. I once smelled it at Lake Station, across the arm of the lake. We thought it was 15 or 20 miles away from the factory. We also smelled it up in the city of Chicago. Men who work in this business are invariably healthy. I never had a sick man in my life. During the 15 or 20 years of being engaged in this business, the men I have had employed, and their families, have invariably been healthy.

AUGUST BUSSE:

I keep a grocery, and cut my ice in the Calumet River in the winter. The ice is of the best quality—nice, clear ice. We cut it about 80 or 90 rods below the Northwestern Fertilizing Company. I have lived at Ainsworth for eight years, and don't know of any sickness in my family on account of this factory; we always have good health.

CHARLES NESS:

I worked in the Union Rendering Company, receiving dead horses, and so forth; some of them were received in a pretty good condition, and some smelled badly, and some very badly. These animals were cut up and taken by machinery to the top of the building, where they were dropped into a tank through a hole or opening at the top, and then this opening was stopped up; steam was applied, and after the animal matter had been permitted to cook for several hours, the steam was let off into the atmosphere, and the water drawn off into vats, whence the grease was skimmed and the water was drained

172 into the Calumet River, and the animal matter thrown into the marshes.

I never worked for the Northwestern Fertilizing Company. I know the piles of tank-stuff and blood that are piled up at the factory. There is no drainage from these piles that I ever saw. I am about there three or four times a day; sometimes once or twice a week only, and have been about there all the winter. The only thing that I have seen draining from them is drainage from piles of snow. I have been about the factory five or six years, and have a family, and we have all been in good health. I have a wife and child a year old, and we are in good health—always have been.

FRANK WOLF:

I am engineer for the Northwestern Fertilizing Company, and have been thus employed for three years, and have been seven years in

South Chicago, all of which time I have worked in one capacity or another in the fertilizing company's factory. My health has always been good. I have a wife and two children, one three years old and the other nine months. I know the pile of blood and the tank-stuff. There is no drainage from these piles. The water of the Calumet River is clear, good water, and we drink it.

JOHN CAIN:

I have worked in the Northwestern Fertilizing Company for four years, and know of the Union Rendering Company. All the steam from the works of the Union Rendering Company, after it had cooked the animal matter, was let into the atmosphere. The animals which came there were in a very putrid condition—some of them very bad. The animal matter, after it had been steamed, and the water drained off, was thrown by the Union Rendering Company into the sloughs. The
173 Northwestern Fertilizing Company never did that with any of their animal matter. I know the piles of blood and tank-stuff at the Northwestern Fertilizing Company now, and there is no drainage from them. I have worked there all the winter. The factory employs about 80 men, and I never knew any of them to be sick; they are hearty, hale, well men.

TERRY MCGAUVERN:

I have worked four years in the Northwestern Fertilizing Company. I never was sick, and never knew anybody to be sick from the effects of the factory. It works 70 or 80 men. I know the piles of blood and tank-stuff piled up there, and there is no drainage from it except the flowing of some water from a pile of snow that was covered up by the tank-stuff when it was drawn out. Nothing drains from these piles and runs into the Calumet River. I am about there every day. I have a family with two children, and we are all healthy and well.

PETER FREDERICKSON:

I have been 18 months in the factory; never have been made sick, nor have my family. I have three children. I know the piles of blood and of tank-stuff, and there is no drainage from these piles into the marshes or into the river. I am about there every day.

JOHN HUMPHREY:

I have worked in the factory for 17 months. I have always had good health, and all of the other men are healthy, strong men. One child, 18 months old, and my family have not been sick, except my child was sick last summer. It was pronounced by the doctor cholera morbus.

CHRISTOPHER QUINN:

I am 48 years old, and have worked seven years for the
174 Northwestern Fertilizing Company. I also worked for Wahl Brothers. I know the piles of blood and of tank-stuff piled up there; there is no drainage from them into the marshes, or into the river.

JOHN TIDGE:

I have worked in the factory six years, and have always been healthy. I have no family, but I have two sisters and five brothers; never knew any of them sick from this cause.

EDWIN BAUGH:

The drying process described as now used at Communipaw and those used here two years ago, are on the same principle—a drying-cylinder,

with steam-jacket two or three inches around it. The steam is introduced into this jacket in all that class of machines that I have seen. Those that were in use two or three years ago have been abandoned. They were recommended to our establishment very highly, and we investigated the subject, but became satisfied they would not prove a success. These machines are precisely similar to the ones spoken of by Mr. Allerton as having been in use at Communipaw. We offered the parties who applied to us with this machine ground to put it up, and an opportunity to demonstrate it, but they wanted us to buy the patent; but we were not sufficiently satisfied of its utility to make its purchase. Since I came here to Chicago we have offered the owners of these machines facilities for demonstrating their practicability, and if they can do so we want their machine.

We also examined the Hogle machine, and were satisfied we could not better the situation by its introduction. Its capacity was entirely too limited. We subjected it to a trial for the purpose of making up our minds on this subject, and declined to purchase it because it would not answer practically.

175 Taking the machine described by Mr. Allerton, and assuming that we could condense the vapors, these vapors would become filthy water, and not less than 60 tons a day. In New York they could discharge this putrid water into the bay, and it would affect no one injuriously, but we could not discharge it into the Calumet River without making the water an intolerable nuisance. Besides, the machine will not do work enough; it would take hundreds of such machines to do our business. Having examined carefully all of these machines, we have adopted the benzine process as being more valuable than any other. We made up our minds that all these machines which take the material after it had been treated with steam in the tanks was taking the question at the wrong place, and the proper way was to remedy the evil in the tanks, and before decomposition had commenced, by the use of the vapors of benzine instead of the vapors of water, and thus preventing of engendering decomposition.

At the time we bought the benzine process we knew of these other machines, and we considered that process better adapted to these purposes than any that have been introduced. I have been down to the factory since this trial has been in progress, and examined the piles of tank-stuff and blood, and I saw no indication of any traces of drainage into the river. It was in the day-time I was there. I have been in this business 19 years, and have had occasion to observe men who are at work in factories like this, and it is remarkable that in case of epidemics our factory has been exempt entirely. When the cholera was in Philadelphia, the employees of our factory were entirely exempted from it, and persons would come and apply to get into it to escape the disease. During the entire 19 years of my experience I have never known of a man working in our factory becoming sick from anything in connection with the factory or which could be traced to it.

176 R. RALSTON:

When we first got our machinery to such a state of perfection that we could dry the material in it without drying it first in the sun, (first in the latter part of 1871, and then in the latter part of 1872,) we increased the number of these machines, so that the night before the fire we had capacity for drying equal to the stock daily received. Of the stock on hand, I think we can dry the tank-stuff by the 1st of June, perhaps sooner.

The blood, in being dried, or while it is standing in the pile, does not give off offensive odors.

There was also introduced in evidence by the complainant an act to reduce the several acts relating to the town of Hyde Park, in Cook County, into one act defining the limits of said town and the powers and duties of the officers thereof, approved March 5, 1857, in which are the following sections:

SEC. 11. The said board (the board of trustees) shall have, subject to the provisions of this act, the general management and control of the finances and all the property, real, personal, and mixed, of the town, and shall likewise have power, within the territery aforesaid, by ordinance, regulation, or by law.

* * * * * * *

Eighth. To compel the owner or occupant of any grocery or cellar, tallow-chandler shop, soap-factory, tannery, or other unwholesome, nauseous house or places, to cleanse or remove or abate the same, from time to time, as often as may be necessary for the health, comfort, and convenience of the inhabitants of said town.

* * * * * * *

Fifteenth. To determine and abate all nuisances which are or may be injurious to the public health in any manner they may deem expedient.

177 Sixteenth. To regulate, restrain, prohibit, or license breweries, tanneries, packing-houses, distilleries, slaughter-houses, butcher-shops, stock-yards, or establishments for the steaming or rendering of lard, tallow, offal, and such other substances as can or may be rendered, boiled, and steamed; and all establishments or places where any nauseous, offensive, unwholesome, or immoral business may be carried on.

* * * * * * *

SEC. 31. Nothing in this act shall be so construed as in any manner to authorize or empower the trustees of said town or its officers or agents to prohibit, interfere with, obstruct, or hinder such parties, their successors or assigns, as are now engaged in the business of conveying from the city of Chicago to any point south of the town line between townships thirty-seven (37) and thirty-eight (38) north, ranges fourteen (14) and fifteen (15) east of the 3d P. M., offal or any other animal matter, and the manufacture of the same into an agricultural fertilizer or other chemical product, or the rendering and straining of any such animal matter south of said line by the parties aforesaid.

SEC. 32. This act shall be a public act, and take effect and be in force from and after its passage.

Which was all the testimony offered by either of said parties.

WM. W. FARWELL,
Judge Cook Co. Cir. Ct.

178 STATE OF ILLINOIS,
Cook County, ss:

I, Jacob Gross, clerk of the circuit court of Cook County, in the State aforesaid, do hereby certify, in pursuance of the foregoing stipulations made between Leonard Sweet and Charles Hitchcock, the attorneys of record in this case, that the above record and bill of exceptions filed in this office, contains a true, perfect, and complete copy of all papers filed and proceedings had and entered of record in a certain cause lately pending in said court, on the chancery side thereof, between the Northwestern Fertilizing Company, complainant, and the Village of Hyde Park et als., defendants.

In witness whereof I have hereunto set my hand and affixed the seal of said court at Chicago, in said county, this eleventh day of August, 1873.

[L. S.] JACOB GROSS, *Clerk.*

179 To wit, on the 10th day of October, in the year of our Lord one thousand eight hundred and seventy-three, the same being one of the days of said term:

THE NORTHWESTERN FERTILIZING CO. *vs.* THE VILLAGE OF HYDE PARK. } No. 457. Appeal from Cook.

And now on this day this case is submitted by appellants on abstracts and briefs filed and taken on call by the court.

180 And, to wit, on the twenty-fourth day of September, in the year of our Lord one thousand eight hundred and seventy-four, being in term time after September term, eighteen hundred and seventy-three, the opinion of the court was filed herein, in words and figures following, to wit:

181 THE NORTHWESTERN FERTILIZING CO. *vs.* THE VILLAGE OF HYDE PARK. } No. 457. Appeal from the circuit court of Cook Co.

Opinion by WALKER, J.:

In the year 1867 a number of persons became incorporated, under an act of the general assembly, as the Northwestern Fertilizing Company. They were, by their charter, empowered to establish depots in the city of Chicago for the reception of offal, dead animals, and animal
182 matter, either from the city or from individuals, and to erect a factory for its conversion into an agricultural fertilizer to be established at a designated point about fifteen miles south of the city.

The charter authorized a subscription of two hundred and fifty thousand dollars of stock in the company, and the organization was to continue for fifty years. After their organization they commenced the manufacture of the fertilizer and continued to operate their factory until this suit was brought. In conducting this business the company received, substantially, all of the offal in the city with the refuse from the packing houses, and all dead animals during the winter, which
183 they worked up and converted into a fertilizer during the next summer and autumn. On the fifth day of March, 1867, three days before the charter was granted to appellants, the general assembly adopted an act revising the charter and its various amendments of the town of Hyde Park. By it the village was expressly authorized to regulate and control groceries or occupants of cellars, tallow-chandlers' shops, soap-factories, tanneries, or other unwholesome, nauseous houses or places, and to compel the owners or occupants to cleanse or remove or abate the same; to determine what are nuisances which are or may be injurious to the public health, and to abate the same in any
184 manner they may deem expedient; to regulate, restrain, prohibit, or license breweries, tanneries, packing-houses, butcher-shops, stock-yards, or establishments for the steaming or rendering of lard, tallow, offal, or such other substances as can or may be rendered, boiled, and steamed, and all establishments or places where any

nauseous, offensive, unwholesome, or immoral business may be conducted. But the 31st section of this charter provides that nothing therein contained should authorize the town or its officers to prohibit, interfere with, hinder, or obstruct parties engaged in carrying offal from the city of Chicago to a designated point in the town, and from manufacturing the same into an agricultural fertilizer or other chemical product. The charter of the town was again revised in March,
185 1869, when substantially the same powers were conferred upon the trustees; but the sixteenth section contained this proviso: "That the sanitary and police powers conferred by this act shall not be exercised by said board of trustees as against the Northwestern Fertilizing Company or the Union Rendering Company, located at or near the Calumet River, in said town, until the full expiration of two years from and after the passage of this act." Subsequently this, among other ordinances, was adopted by the village: "No person shall transport, haul, or convey any offal, dead animals, or other unwholesome matter or material into or through the village of Hyde Park, and any person who shall be in charge of or employed on any train or
186 team carrying or conveying any such matter or matters into or through the village of Hyde Park shall be subject to a fine of not less than five nor more than fifty dollars for each offence." After the adoption of this ordinance, and after the expiration of two years from March, 1869, appellants continued to transport offal, dead animals, and animal matter through the town of Hyde Park to their factory to be converted into the fertilizer; and after giving notice to appellants that the ordinance would be enforced on the 8th day of January, 1873, the town authorities arrested the engineer and other employees of the Fort Wayne & Chicago Railway, who were engaged in carrying offal through the village to the factory of appellants, on a charge of
187 violating the ordinance. They were tried, convicted, and fined $50 each. This being highly injurious to the business of appellants they filed this bill to enjoin any further prosecution under the ordinance. A hearing was had on the bill, answer, replication, and proofs, when the court below denied the relief sought and dismissed the bill. From that decree the company appeal to this court. Appellants claim that under their charter they have granted to them the privilege of pursuing their business, although it may be a nuisance to the citizens in the neighborhood; that the only limitation on the power, and it is implied, is that they shall use the best chemical and mechanical processes to prevent its becoming an annoyance to others, and shall in the future adopt and use such further improvements as
188 may be discovered during the continuance of their charter; that they have, in this respect, discharged their entire duty; that the State, by granting the charter to the company, thereby entered into a contract with the corporation and their successors that they might use the franchise and manufacture the fertilizer during its continuance; that by accepting the charter and organizing the company they acquired vested rights in the franchises and privileges thus granted, freed from the police power of the State; and that the general assembly does not possess the power to render the corporation, its members, employees, or servants liable to the law for creating a nuisance, nor to confer such a power on the village of Hyde Park. These we understand to be the grounds assumed by appellant as to the law of the case.
189 An examination of the evidence in this case clearly shows that this factory was an unendurable nuisance to the inhabitants for many miles around its location; that the stench was intolerable, pro-

ducing nausea, discomfort, if not sickness, to the people; that it depreciated the value of property and was a source of immense annoyance. It is, perhaps, as great a nuisance as could be found or even created. Not affecting as many persons as if located in or nearer to the city, but as intense in its noisome effects as could be produced. And the transportation of this putrid animal matter through the streets of the village, as we infer from the evidence, was offensive in a high degree, both to sight and smell. The legislative branch of government is vested
190 with the power to give shape to and control its policy by the enactment of laws. It has the power to say what shall or shall not be done by its citizens; to declare what shall constitute legal and what illegal acts or pursuits; to define what acts shall constitue crimes, what misdemeanors, and what shall be innocent and lawful. And in the exercise of these powers that branch is under no control, unless it be restrained by the fundamental law creating the government. No other department in our form of government can check or obstruct the legislative department in the exercise of this power. It is true the people by the election of persons to the general assembly who entertain different views may thus modify or repeal such laws. But until thus modi-
191 fied or repealed the laws constitutionally passed must be regarded as of full and binding force. In our system of government the legislative department is entrusted with the sole power of enacting laws for the government of the people, and those laws must be enforced unless repugnant to the constitution of government by which that department is created, and under which it acts. No law can be repealed but by the authority which enacted it. Laws, however, when enacted, must be interpreted and applied to the various humane acts which they were intended to control. And in such interpretation the courts, to whom that duty is entrusted, act upon well recognized canons of construction, among which is that one which declares that all grants by the
192 legislature must, in cases of doubt, be construed most favorably to the government. Another is that where an enactment will bear two different interpretations, one injurious to the public and the other not, the courts must adopt that which will not work injury. And it is because it must be presumed that the legislature which was created to enact just and reasonable laws to protect the governed in their rights and for the promotion of their happiness, did not intend to violate their duty and to inflict injury. And, under the first, as the general assembly is entrusted with the power of legislation, it cannot be presumed in making a grant that they intend to divest themselves of power entrusted to them for the protection and welfare of the governed, and hence
193 it cannot be inferred that they intended in a grant to yield any more than is shown by clear and express language; and especially is this so when the grant, in its nature, is irrevocable. It was not intended when the government was framed that the legislative department should ever yield or irrevocably cede the power of governing the people in the best manner to individuals or to a collection of individuals. Whilst the experience of the past has shown that good government may be promoted, and the people better secured in their rights by the creation of municipal corporations, it has, so far as our researches have led us, never been held that the powers granted to such bodies may
194 not be withdrawn and resumed at the will of the legislature; and to hold that the powers thus granted became in such bodies vested rights would be contrary to the intention of the people in forming the government. They entrusted the legislature with its vast powers to be exercised by them for the general good, and not to be granted

nauseous, offensive, unwholesome, or immoral business may be conducted. But the 31st section of this charter provides that nothing therein contained should authorize the town or its officers to prohibit, interfere with, hinder, or obstruct parties engaged in carrying offal from the city of Chicago to a designated point in the town, and from manufacturing the same into an agricultural fertilizer or other chemical product. The charter of the town was again revised in March,
185 1869, when substantially the same powers were conferred upon the trustees; but the sixteenth section contained this proviso: "That the sanitary and police powers conferred by this act shall not be exercised by said board of trustees as against the Northwestern Fertilizing Company or the Union Rendering Company, located at or near the Calumet River, in said town, until the full expiration of two years from and after the passage of this act." Subsequently this, among other ordinances, was adopted by the village: "No person shall transport, haul, or convey any offal, dead animals, or other unwholesome matter or material into or through the village of Hyde Park, and any person who shall be in charge of or employed on any train or
186 team carrying or conveying any such matter or matters into or through the village of Hyde Park shall be subject to a fine of not less than five nor more than fifty dollars for each offence." After the adoption of this ordinance, and after the expiration of two years from March, 1869, appellants continued to transport offal, dead animals, and animal matter through the town of Hyde Park to their factory to be converted into the fertilizer; and after giving notice to appellants that the ordinance would be enforced on the 8th day of January, 1873, the town authorities arrested the engineer and other employees of the Fort Wayne & Chicago Railway, who were engaged in carrying offal through the village to the factory of appellants, on a charge of
187 violating the ordinance. They were tried, convicted, and fined $50 each. This being highly injurious to the business of appellants they filed this bill to enjoin any further prosecution under the ordinance. A hearing was had on the bill, answer, replication, and proofs, when the court below denied the relief sought and dismissed the bill. From that decree the company appeal to this court. Appellants claim that under their charter they have granted to them the privilege of pursuing their business, although it may be a nuisance to the citizens in the neighborhood; that the only limitation on the power, and it is implied, is that they shall use the best chemical and mechanical processes to prevent its becoming an annoyance to others, and shall in the future adopt and use such further improvements as
188 may be discovered during the continuance of their charter; that they have, in this respect, discharged their entire duty; that the State, by granting the charter to the company, thereby entered into a contract with the corporation and their successors that they might use the franchise and manufacture the fertilizer during its continuance; that by accepting the charter and organizing the company they acquired vested rights in the franchises and privileges thus granted, freed from the police power of the State; and that the general assembly does not possess the power to render the corporation, its members, employees, or servants liable to the law for creating a nuisance, nor to confer such a power on the village of Hyde Park. These we understand to be the grounds assumed by appellant as to the law of the case.
189 An examination of the evidence in this case clearly shows that this factory was an unendurable nuisance to the inhabitants for many miles around its location; that the stench was intolerable, pro-

ducing nausea, discomfort, if not sickness, to the people; that it depreciated the value of property and was a source of immense annoyance. It is, perhaps, as great a nuisance as could be found or even created. Not affecting as many persons as if located in or nearer to the city, but as intense in its noisome effects as could be produced. And the transportation of this putrid animal matter through the streets of the village, as we infer from the evidence, was offensive in a high degree, both to sight and smell. The legislative branch of government is vested
190 with the power to give shape to and control its policy by the enactment of laws. It has the power to say what shall or shall not be done by its citizens; to declare what shall constitute legal and what illegal acts or pursuits; to define what acts shall constitue crimes, what misdemeanors, and what shall be innocent and lawful. And in the exercise of these powers that branch is under no control, unless it be restrained by the fundamental law creating the government. No other department in our form of government can check or obstruct the legislative department in the exercise of this power. It is true the people by the election of persons to the general assembly who entertain different views may thus modify or repeal such laws. But until thus modi-
191 fied or repealed the laws constitutionally passed must be regarded as of full and binding force. In our system of government the legislative department is entrusted with the sole power of enacting laws for the government of the people, and those laws must be enforced unless repugnant to the constitution of government by which that department is created, and under which it acts. No law can be repealed but by the authority which enacted it. Laws, however, when enacted, must be interpreted and applied to the various humane acts which they were intended to control. And in such interpretation the courts, to whom that duty is entrusted, act upon well recognized canons of construction, among which is that one which declares that all grants by the
192 legislature must, in cases of doubt, be construed most favorably to the government. Another is that where an enactment will bear two different interpretations, one injurious to the public and the other not, the courts must adopt that which will not work injury. And it is because it must be presumed that the legislature which was created to enact just and reasonable laws to protect the governed in their rights and for the promotion of their happiness, did not intend to violate their duty and to inflict injury. And, under the first, as the general assembly is entrusted with the power of legislation, it cannot be presumed in making a grant that they intend to divest themselves of power entrusted to them for the protection and welfare of the governed, and hence
193 it cannot be inferred that they intended in a grant to yield any more than is shown by clear and express language; and especially is this so when the grant, in its nature, is irrevocable. It was not intended when the government was framed that the legislative department should ever yield or irrevocably cede the power of governing the people in the best manner to individuals or to a collection of individuals. Whilst the experience of the past has shown that good government may be promoted, and the people better secured in their rights by the creation of municipal corporations, it has, so far as our researches have led us, never been held that the powers granted to such bodies may
194 not be withdrawn and resumed at the will of the legislature; and to hold that the powers thus granted became in such bodies vested rights would be contrary to the intention of the people in forming the government. They entrusted the legislature with its vast powers to be exercised by them for the general good, and not to be granted

beyond the power of recall to either municipal bodies or to individuals. The legislative department holds this power in trust to be used by them and them alone whenever the public good requires it. If they could irrevocably deprive that branch of government of the power to protect the people against crime, misdemeanors, and frauds and oppressions, the very object and purpose of the creation of the legislative department would fail and be defeated. It never was intended or sup-
195 posed that the legislature would ever deprive themselves or their department of government of their constitutional power to enact wholesome laws for the protection of the citizen from wrong and oppression. And it being contrary to their duty there can be no presumption that they so intended, unless the language employed in the grant is so plain that it will bear no other construction. The power conferred by the charter is this: "Said corporation is hereby authorized and empowered to establish and maintain chemical and other works at the place designated herein for the purpose of manufacturing and converting dead animals and other animal matter into an agricultural fertilizer and into other chemical products, by means of
196 chemical, mechanical, and other processes." Does this grant of power authorize this company to violate the criminal laws of the State by creating a nuisance for which an individual might be indicted and punished? In terms it certainly cannot be so held. It contains no language which purports to grant such an immunity. All will readily admit that when private corporations are created, unless exempted by legislative enactment, are amenable to the criminal laws and the police regulations of the State precisely as are natural persons. It would be monstrous to hold that because an artificial person is created and authorized to perform certain acts and to accomplish certain ends, that, in doing so, the body may resort to criminal agencies. There is always an implication connected with the grant
197 of such charters that in performing their functions and exercising their powers they shall only employ lawful and honest means. It is true that when a grant of power is conferred on such bodies and the means of its exercise are not specified, they may employ the most natural and appropriate legal means to accomplish the end. They are not thereby authorized to employ any means they may choose without regard to the rights of others, the interests of individuals, or the welfare of communities. The means adopted must be suitable to the end, in conformity with the maxim "Sic utere tuo, ut alienum non lædas." Such bodies can only exercise such powers as are expressly granted or as are necessary to accomplish the purpose of their creation.
198 Was, then, this power given by implication? Did the general assembly intend to give this body the power in manufacturing the agricultural fertilizer to create a nuisance, injurious to the health and comfort of the citizen and highly injurious to the enjoyment of their property and destructive to its value? As government is organized and maintained for the protection of the people in their lives, persons, and property, and the legislature is entrusted with the enactment of laws to effectuate these objects, the presumption is that they are controlled by the maxim, "Salus populi est suprema lex," and not for the promotion of the interest of the few to the injury of the many. A reasonable construction of this grant of power is that this com-
199 pany may carry on their business for the purposes indicated upon the condition that they should do so without violating any public law and without creating a public nuisance. This seems to us to be the only reasonable interpretation that can be given to the language

employed. This same charter authorizes this company to establish depots in the city to receive the dead animals and animal matter to be manufactured. But there is no specific provision that the company shall so manage these receptacles as that they shall not become a nuisance. And yet no one would contend that they have a contract with the State by which they can permit such matter to lie there indefinately and
200 become putrid and a nuisance to the people in the vicinity. And in what consists the difference? In the one they may receive the matter; at the other they may manufacture it. But we see no greater exemption in the one case than in the other. The maxim applies: "Legis constructio non facit injuriam." Hence in construing statutes the presumption must be adhered to that it was not intended to injure any one, much less the people generally. When such an intention is expressed in clear and explicit language that admits of no construction, then courts can but carry out the legislative will, where that body has not transcended the limits of their power. In the case of Ohio and Miss. R. R. v. McClelland, (25 Ills., 140,) it was held that in grant-
201 ing the charter to the railroad company, the legislature not having in terms surrendered the right to subject it to the general police regulations, in the absence of express language such an exemption would not be inferred. That in the creation of these bodies it must be held to be subordinate to and under the control of the government to the same extent as individuals. That they had at all times been required to conform to the general laws of the State precisely as if they were natural and not artificial persons. To hold otherwise would be to create a government within a government independent and free from its control.

202 And the case of Providence Bank v. Billings, (4 Pit. R., 514,) was referred to where Chief-Justice Marshall says, in reference to the State not having relinquished the power to tax the banks: "But as the whole community is interested in retaining it undiminished, that community has a right to insist that its abandonment ought not to be presumed in a case in which the deliberate purpose of the State to abandon it does not appear." So of the power to regulate the general police of the State. The power to impose police-regulations operates upon all alike. And this is a fundamental principle lying at the
203 very foundation of organized society. It is yielded by each member when he enters society for the good of the entire community. That it is incident to and a part of government itself, and need not be expressly reserved when it grants rights or property to individuals or to corporate bodies; as they take subject to this right. (See Galena & Chi. U. R. R. v. Appleby, 28 Ill., 283, and Dingman v. The People, 51 Ill., 278, where the same rule is announced.) Had a citizen erected this structure and created this nuisance, does any one suppose that such person would not have been liable to prosecution and punishment? An
204 individual in pursuit of gain had the undoubted right to make such an erection, and use it too, provided it did not become a nuisance and inflict injury upon others. And why or how does an artificial person, created to promote private interest and incidentally promote the general welfare, acquire any greater or more sacred rights than the individual citizen? Does any one suppose that the general assembly could by enactment authorize irrevocably an individual for his private gain to inflict injury to the life, health, peace, and property of the community? And if the irrevocable power to do these things by an individual cannot be granted, how can it be contended that
205 such irrevocable power can be confer'ed on a corporation? Such

entities should be content to have the powers of natural persons, and be subject to the same rules prescribed for the government of the community in which they exist. We hazard nothing in saying that the general assembly never supposed they were creating artificial bodies, not subject to be controlled by the police power inherent in and inseperable from the soverignty of the State. It would be impossible to suppose the general assembly, or in fact any government, would or could divest itself of all power, beyond recall, to prescribe what are crimes
206 and to punish them. And if such a grant may be made to corporations, it may be to individuals. If with one person, it may be with all in community, and the power of protection be lost and the ends of government be defeated. Nor is it an answer to say that it is conceeded by agreement or contract. The legislature has the same power to say to an individual, if he will perform a particular act, or pursue a specified calling, he shall be released from the police-power of the State as to say to a number of persons that if they will organize and perform that act, or pursue that occupation, that they
207 shall be free from its operation. The general assembly might *assist* the performance of the duty resting upon them by failing to prescribe what shall constitute crimes and in not providing for their punishment. If so, then so long as a civil remedy should not be taken away, each individual would be left to his action against the wrong-doer for the injury inflicted upon him. But the exemption of an individual or a class of individuals from punishment for crimes or misdemeanors by an act of the general assembly would not prevent that body
208 from the repeal of that law and bringing them under the general law punishing crimes and misdemeanors. And why should they exempt a body-corporate? No reason is perceived why they should not in this respect be governed as are natural persons. The formation of government was to confer equal rights and protection to all persons. In view of what we have said we must therefore hold that all persons possess their rights, whether to things tangible or entangible, subject to the general police-power of the State, and that corporate bodies are not, nor can they be, held to be a privileged class in this regard. When created they are *ordained* by provisions of their charters to the extent
209 of the grant, with the same rights, and are liable to the same duty and obedience to government as individuals. They are created persons, but not higher nor superior to natural persons. They are endowed with rights and powers within the scope of their franchises to the same, and only to the same, extent as natural persons. To hold otherwise is to reverse the rules of construction, the theory and policy of government; to change the principles on which it is based, to encroach upon the rights of the people, and to create a power in the State beyond its control, and highly dangerous to the general we'fare.
210 Such immunity to these bodies was not intended by the framers of our Government, and we have no doubt would have been expressly prohibited if they could have imagined that such privileges would be granted or claimed by construction. Nor can we believe the legislature supposed such exemption for such bodies would ever be claimed, or they would have expressly provided that they should be subject to the general laws of the State, precisely as are individuals. Nor did the inhibition in the village charter from exercising the police-power in reference to this company for two years inure to this company as a grant to them; it was only a police-regulation operating
211 upon and controlling the village government. Appellants were not a party to that enactment, and have no right to claim any

privilege under it after the expiration of the two years. It was not a grant of an immunity to appellants, but it was a restriction on the village preventing it from exercising the power for the specified period. This was the full scope of the enactment; and it, by implication, fully authorized the village to enact appropriate ordinances to abate the nuisance, and to enforce the same after the expiration of the two years named in their charter. The grant of power was ample, and its
212 exercise was only suspended for the limited period as to appellants and the other company, and when the time expired all impediments to its exercise was removed. Inasmuch, then, as the charter of appellants did not authorize them to create a nuisance, but only to exercise their franchise so as not to injure community, the authorities refer'ed to are not applicable to the case. The cases refer'ed to in reference to the erection of mills may be regarded as necessarily producing the nuisences of which complaint was made, and as an implied authority by the legislature to maintain the nuisance. But even if it were conceeded that the general assembly has such power, those cases are not like this, as no
213 such power was granted by this charter; hence those cases have no application. Had the legislative power been thus exerted in the cases refer'ed to, and the courts had held that the owners of the mills were nevertheless exempt, then the cases would have been analogous, and would have demanded of us the determination whether we would have yielded obedience to them as authority. It also follows that the case of Dartmouth College v. Woodward, 4 Wheat., 518, and the other cases announcing the same rule, have no application. We have seen there was no contract between the State and appellants that they might create and maintain this nuisance, and hence no rights
214 derived by contract have been impaired. It is urged that railroads in cities and towns are nuisances, but they are only exercising their functions in thus operating them. If this be true—and we doubt not they may be so operated as to make them such—still the general assembly has in many instances, long after their charters were granted and the roads were constructed, enacted laws regulating the speed of trains in cities and towns, or confer'ed the power on such municipalities to do the same thing, and thus prevent the roads from becoming a nuisance. Nor are we aware that this salutary exercise of the police-power has ever been challenged. Its justness and even
215 necessity has commended it to all, and it has not been questioned. And this is a fair illustration of the exercise of the police-power over bodies corporate. It is on the same principle that railroads are required to fence their tracks, sound a whistle or ring a bell at highway crossings, and to come to a full stop before a train crosses another railroad. These and many other duties are imposed as being necessary for the safety of the people and their property, and grow out of implied power that the general assembly may restrain these bodies to promote the safety of community as it may individuals.

After a careful examination of the record and an attentive con-
216 sideration of the arguments filed in the case, we are unable to say that the court below erred in rendering the decree it did, and it must be affirmed.

Decree affirmed.

217 And to wit:

In term-time after Sept. term, 1873.

SEPT. 24*th*, *A. D.* 1874.

THE NORTHWESTERN FERTILIZING COMPANY *vs.* THE VILLAGE OF HYDE PARK. } No. 457. Appeal from Cook.

On this day came again the said parties, and the court having diligently examined and inspected as well the record and proceedings aforesaid as the matters and things therein assigned for error, and being now sufficiently advised of and concerning the premises, for that
218 it appears to the court now here that neither in the record and proceedings aforesaid, nor in the rendition of the decree aforesaid, is there anything erroneous, vicious, or defective, and that that record is no error: Therefore, it is considered by the court that the decree aforesaid be affirmed in all things and stand in full force and effect, notwithstanding the said matters and things therein assigned for error. And it is further considered by the court that the said appellee recover of and from the said appellants its costs by it in this behalf expended, and that it have execution therefor.

219 STATE OF ILLINOIS, *ss:*

I, Cairo D. Trimble, clerk of the supreme court in and for the northern grand division of the State of Illinois, do hereby certify the above and foregoing to be a true, full, and complete copy of the record and proceedings of a certain cause entitled in this court The Northwestern Fertilizing Company against The Village of Hyde Park.

Witness my hand and the seal of said supreme court, at Ottawa, in said State, this 31st day of October, A. D. 1874.

[SEAL.] C. D. TRIMBLE.

220 Supreme Court of the United States.

THE NORTHWESTERN FERTILIZING COMPANY *vs.* THE VILLAGE OF HYDE PARK AND CHAUNCEY M. CADY, W. E. HALE, A. D. WALDRON, LUCIUS G. FISHER, E. G. CLARKE, M. DOYLE, J. M. BARNEY, LESTER BRADNER, JR., AND H. VANDERBILT, TRUSTEES OF SAID VILLAGE.

Of October term in the year of our Lord one thousand eight hundred and seventy-four.

Afterwards, to wit, on the second Monday of October, in this
221 same term, before the justices of the Supreme Court of the United States, at the Capitol, in the city of Washington, comes the said Northwestern Fertilizing Company, by Leonard Swett, its attorney, and says that in the record and proceedings aforesaid there is manifest error in this, to wit:

1. The said supreme court of the State of Illinois erred in affirming the decree of the said circuit court of Cook County.
2. The said supreme court of the State of Illinois erred in dismissing the bill of complaint of the plaintiff in error.
3. The said supreme court of the State of Illinois erred in rendering judgment in said cause for the defendants in error.

222 And the said Northwestern Fertilizing Company prays that

the judgment aforesaid may be reversed, annulled, and altogether held for nought, and that it may be restored to all things it hath lost by occasion of the said judgment.

LEONARD SWETT,
Attorney for Plaintiff in Error.

223 UNITED STATES OF AMERICA:

In the Supreme Court of the United States.

To the honorable David Davis, one of the judges of said court:

Your petitioner, the Northwestern Fertilizing Company, a corporation created and existing under the laws of the State of Illinois, respectfully represents that on the eleventh day of January, A. D. 1873, it filed in the circuit court of Cook County and State aforesaid, on the chancery side thereof, a bill of complaint setting forth, among other things, the following, to wit:

That on the eighth day of March, A. D. 1867, an act passed by the legislature of the State of Illinois became a law, by which, among
224 other things, the persons therein named, their successors, associates, and assigns, were constituted a body corporate and politic, with power of continual succession for the term of fifty years, by the name of The Northwestern Fertilizing Company, and clothed with the usual powers of corporate bodies. Said act also provided that the capital stock of the corporation should be fifty thousand dollars, with power to increase the same to any sum not exceeding two hundred and fifty thousand dollars. By said act also the corporation was authorized and empowered to establish and maintain chemical and other works at the place designated, for the purpose of manufacturing and converting dead animals and other animal matter into an agricultural fertilizer
225 and other chemical products, by means of chemical, mechanical, and other processess.

It was further provided by this charter that the chemical works should be located in Cook County, Illinois, within certain limits designated therein, and that the corporation might maintain depots within the city of Chicago for the purpose of receiving and carrying off any and all offal, dead animals, and animal matter which it might buy or own, or which might be delivered to it by the said authorities and other persons. A copy of this charter was attached to the said bill of complaint as an exhibit.

Your petitioner would further show that it was also alleged that on the thirteenth day of December, 1867, the corporate organ-
226 *ani*zation contemplated was perfected, and capital stock was subscribed to the amount of fifty thousand dollars. A location was selected within the limits designated by the charter for the purpose of carrying on the business and carrying out the purposes of said corportion. The site thus selected was within the limits of the village of Hyde Park, in Cook County, Illinois. Buildings were erected upon said site, and depots established in the city of Chicago, which depots were for the purpose of receiving dead animals, offal, and animal matter, and the buildings were for the purpose of converting [such material] into agricultural fertilizers.

Your petitioner would also show that said bill contained the
227 averment that the capital stock was increased from fifty thousand dollars to two hundred and fifty thousand dollars, which was

fully paid up and invested by the corporation in land, buildings, depots, tracks, machinery, improvements in machinery and costly experiments for the purpose of carrying on the business authorized by said charter, and carrying out the purpose of said corporate organization. That said corporate organization had been continued and the business authorized by the charter carried on by it at the site selected from the time the corporation was organized as set forth therein.

It was further alleged in said bill that the immense packing interests of the city of Chicago, and the vast accumulation of offal
228 and animal matter incident to such business, rendered the formation of such a corporation a public necessity, and the only solution of the difficulty which had increased with the growth of the city and its packing interests. That the site selected was the best suited and the most appropriate for the carrying on of such business, and the least offensive to the mass of the people of any which could be selected.

Said bill also avers that the complainant had carried on this business in the best manner possible, and had made use of every tested improvement for the purpose of lessening its offensive character.

The bill further alleged that your petitioner having become
229 duly organized under its charter, and having invested the full sum of two hundred and fifty thousand dollars in the business especially organized, and having enlarged its works so as to be able to take off, utilize, and consume in a manner the most scientific known, and with the least offensiveness to the public, the offal and animal matter produced in the city of Chicago, it had a vested right, subject to proper police-regulat'ons, to carry on said business for the period of time named in said charter.

It was further alleged in said bill that the village of Hyde Park is a municipal corporation created under the laws of the State of Illinois, and embracing within its limits the establishment of your peti-
230 tioner. That said municipal corporation and the trustees thereof, named in said bill, colluding and combining with various parties to your petitioner unknown, and pretending to exercise police authority under the power given them by law to make all regulations that might be necessary and expedient for the promotion of health and the suppression of disease, had undertaken to interfere with, break up, and utterly destroy your petitioner's business, and prevent it from pursuing the same under its act of [in]corporation aforesaid, and had given out and publicly declared that they would continue such interference until your petitioners should be driven out of the town and the privileges guaranteed by its charter should be destroyed. That said unlaw-
231 ful combination and purpose was sought to be carried out and enforced by said trustees and confederates under the pretence of police regulations, and by virtue of such pretence said trustees had passed, published, and were then trying to enforce the following ordinance:

"No person shall transport, haul, or convey any offal, dead animals, or other unwholesome matter or material into or through the village of Hyde Park, and any person who shall be in charge of or employed on any train or team carrying or conveying any such matter or material into or through the village of Hyde Park shall be subject to a fine of not less than five or more than fifty dollars."

It was further alleged in the said bill that your petitioner had
232 established and maintained a depot [in the town of Lake] in the city of Chicago for the reception of offal and animal matter to be conveyed to its factory at Hyde Park, and that it had been the custom

of the petitioner to transport the offal and animal matter received at its depot in tight box-cars, by the Pit'sburg & Fort Wayne Railroad, to the place where the business was carried on as above set forth, and that the route of said railroad passed through portions of the village comparitively without population.

It was also alleged in said *petition* [bill] that there was no way in which the offal animal matter received by your petitioner at its depot could be transported to its factory without hauling or transporting the same into and through the village of Hyde Park, and that there was
233 no way in which the material could be hauled as aforesaid except by the Pit'sburg & Fort Wayne Railroad, and that there was no way in which said business could be carried on without violating said ordinance; nor could said ordinance be obeyed without the utter abandonment of your petitioner's business and the relinquishment of all its rights conferred upon it by its charter.

Said bill also alleged that said ordinance had been passed by the trustees of said village under the color of law, and was an unlawful attempt, under the pretence of police-regulations, to prevent your petitioner from receiving any supply of material at its factory, and to convey away from your petitioner the privileges conferred by its
234 charter, and for no other purpose whatever.

It was further alleged in said bill that, pursuant to said combination and conspiracy, the president of the board of trustees of said village, on the 6th day of January, 1873, officially notified the assistant general superintendant of said railroad in writing that he had been directed by said board of trustees rigidly to enforce the ordinances of said village relating to nuisances, and that among the ordinances which he had ordered the police-officers of said village to enforce was the ordinance above quoted.

Said bill then stated that said board of trustees and its presi-
235 dent and their confederates, immediately after giving the said notice, caused the police of said village to be stationed near your petitioner's factory, with instructions to arrest under the ordinance any and all employees of your petitioner who should be found transporting offal by rail from its depots to its establishments; and on or about the 8th day of January, 1873, while the engineer, conductor, and brakemen, five in number, were engaged in running on said railroad and the side-tracks to your petitioner's works, a train of cars containing offal and animal matter for your petitioner, for the purpose of being manufactured in the manner aforesaid, and under the provisions of said charter, said police-force arrested said employees and *en*forced them to leave
236 their train upon the side-track, and brought them under arrest before a justice of the peace of said village, about six miles distant from the train, for a pretended violation of said ordinance, by whom they were fined for such pretended violation of the ordinance, and that immediately upon the conclusion of such pretended trial said police-force were ordered back to the side-track of your petitioner to arrest the employees upon the next train which should arrive.

The bill further averred that your petitioner had permanent arrangement[s] with said Pit'sburg & Fort Wayne Railroad, by which it furnished cars and the railroad furnished engines and engineers, conduc-
237 tors, and brakemen to run the same for the transportation of offal and other material to its factory, and that said railroad would not furnish engines and cars for that purpose if the men were constantly arrested and their trains were to be left wherever the *train* arrest might be made, and that the employees would not work upon said trains if said ordinance was *in* [en]force[d].

It was further alleged that the village of Hyde Park, through its president and trustees, openly threatened to continue the said arrests from day to day until they should utterly break up and destroy your petitioner's business; and the president and trustees openly avowed that such was their object and determination; that such inter-
238 ference would break up its business, and it could not carry on and continue the same unless said village of Hyde Park and its officers should desist from or were restrained from making such arrests and persisting in such interference; and that your petitioner feared that said village would persist in and continue such arrests and interference unless restrained and prevented by judicial authority; and that if such interference was persisted in it would result in an irremediable injury and damage to your petitioner, and in effect would work a confiscation of its property.

239 The bill also alleged & insisted that your petitioner's rights, privileges, & immunities herein set forth appertained & belonged to its shareholders as citizens of the United States, & that such rights, privileges, & immunities were guaranteed to your petitioner & its shareholders by the United States & the laws thereof. And that the said village of Hyde Park & the trustees thereof were, by the means above set forth, attempting to deprive your petitioner and its shareholders of such rights, privileges, and immunities under and by virtue of the ordinance hereinbefore set forth, contrary to the Constitution of the United States and the laws thereof.

The bill prayed that the said village of Hyde Park, Chancey M. Cady, a trustee and president of the board of trustees of the village, and his associate trustees, W. E. Hale, A. D. Waldron, Lucius B. Fisher,
240 E. G. Clark, M. Doyle, J. M. Barny, Lester Bradner, jr., and H. Vanderbuilt, and their confederates, might be made defendants to said bill and required to answer the same; and that said village of Hyde Park and its trustees and their agents might be restrained by an injunction out of said circuit court from in any way or manner interfering with, arresting, hindering, or disturbing your petitioner, or any person by your petitioner employed, in carrying, hauling, or transporting, by railroad or otherwise, any offal or animal matter from any of its depots aforesaid to the locality of its works above described, or to said works, or in manufacturing said material into an agricultural fertilizer or other chemical product, or in any manner other prosecuting the business of your petitioner under its act of incorporation; and that your peti-
241 tioner might have such other and further relief in the premises as might be agreeable to equity; and that the court would grant to your petitioner the writ of summons and the writ of injunction, directed to said defendants.

Your petitioner further shows that said bill having been filed, the said circuit court thereupon ordered that a writ of injunction issue out of said court, directed to said defendants, and commanding and enjoining them in accordance with the prayer of said bill, and that such writ of injunction was duly issued and served on said defendants.

Your petitioner further shows that afterwards, to wit, on the third day of February, 1873, the said defendants filed their answer to said bill, of which the following is a summary:

242 Said answer admitted that your petitioner by said act of the legislature became incorporated, and a copy of said act was attached to said answer as an exhibit. The answer also admitted that your petitioner had since been claiming to act under and by virtue of its charter as a body-politic, and that depots and works were erected and established by your petitioner as alleged in its bill.

It was further alleged in the answer that the village of Hyde Park succeeded to the police and sanitary powers conferred upon the town of Hyde Park, and that by an act of the legislature of the State of Illinois entitled "An act to revise the charter of Hyde Park, in Cook County," approved March 26th, 1869, giving full sanitary & police powers to the
243 officers of said town, in the 16th clause of the 18th section of said act the following proviso was inserted: "Provided, however, That the sanitary and police powers conferred by this act shall not be exercised by said board of trustees as against the Northwestern Fertilizing Company or the Union Rendering Company, located at or near the Calumet River, in said town, until the full expiration of two years from and after the passage of this act."

That pursuant to the powers and under the authority conferred by said act, the board of trustees of said town did, on the 14th day of February, 1870, adopt an ordinance declaring, among other things, that all establishments for the steaming or rendering of lard, tallow, offal, or such other substances as might be rendered, boiled, or steamed,
244 should be nuisances, and all establishments where any nauseous or offensive business might be carried on were nuisances, and providing that any person owning or using such places should be subject to fine, and that any person who should deposit any dead animals or offensive or nauseous substances upon any lot, street, or other place in said town should also be subject to a fine.

It was further alleged that on the 29th day of November, 1872, an ordinance was adopted by the president and board of trustees of the village of Hyde Park, pursuant to the 75th, 78th, 83rd, & 96th clauses of article 5th of an act entitled "An act to provide for the incorporation of cities and villages," approved April 10th, 1872, of the laws of the State of Illinois, & in pursuance of which act it was alleged in the answer, and by virtue thereof said village of Hyde Park had suc-
245 ceeded to and become vested with all the rights, powers, & privileges of the town of Hyde Park, and the powers and privileges conferred by said last-mentioned act, which ordinance was set forth and quoted at length in the answer, and contained, among other things, the ordinance set forth in your petitioner's bill, and also prohibited any person from maintaining or carrying on any offensive business or establishment within the limits of the village of Hyde Park, and for the summary abatement of any nuisance by the president of the board of trustees.

The answer alleges and charges that your petitioner's charter did not exempt it from obedience to and compliance with the ordinances of the village of Hyde Park, and that the police and sanitary powers
246 of said village extended to and included thereunder your petitioner as well as citizens of said village, and that no exemption from obedience to said ordinances was conferred upon your petitioner by its charter, and that such ordinances were a proper exercise of the powers conferred by the statutes of the State of Illinois upon the president and trustees of the village of Hyde Park.

It is in their answer also denied that the said ordinances were in derogation of the rights and privileges of your petitioner under its act of incorporation, or that your petitioner acquired any right to disregard the regulations and ordinances of said village by virtue of its charter, and insisted therein that the rights, privileges, and franchises conferred upon your petitioner by its act of incorporation were no other or greater than existed by common law in every other inhabitant in the State of Illinois.

247 Your petitioner further shows that on the 30th day of January, A. D. 1873, said cause was heard by said circuit court upon the bill, answer, and proofs taken therein, and the said circuit court denied to the petitioner the relief prayed for in its bill of complaint, and dismissed said bill out of said court; and thereupon your petitioner prayed an appeal in said cause from the order of said circuit court to the supreme court of the State of Illinois, which was granted upon compliance by your petitioner with the conditions of the order allowing such appeal.

Your petitioner further shows that afterwards said appeal to the supreme court of the State of Illinois was duly perfected, and on
248 the 24th day of September, A. D. 1874, the said supreme court of the State of Illinois rendered a judgment in said cause that the decree of said circuit court, denying to your petitioner the relief prayed for in its bill of complaint and dismissing the same, be affirmed.

Your petitioner further shows that the supreme court of the State of Illinois is the highest court of law or equity in the State of Illinois in which a decision in said cause can be had; that the said judgement or decree of the said supreme court of Illinois is a final decree; that in said suit the validity of said act of incorporation of the town of Hyde Park, and of said act of incorporation of the village of Hyde Park, and of the said several ordinances adopted by the town of Hyde Park and said village of Hyde Park by
249 virtue of said act of incorporation, and of the authority exercised by the said village of Hyde Park under such acts of incorporation, were drawn in question on the ground that such acts of incorporation and said ordinances, and the authority exercised by the said village of Hyde Park, and each of them, were repugnant to the Constitution of the United States. And your petitioner avers that the said decision of the said supreme court of the State of Illinois was in favor of the validity of the said acts of incorporation, and of the said ordinances, and of the said authority exercised by the said village of Hyde Park.

Your petitioner further shows that in said suit rights, privileges, and immunities under the Constitution of the United States were
250 and are specially set up and claimed by your petitioner, and the decision in said supreme court of the State of Illinois was against the rights, privileges, and immunities so set up and claimed by your petitioner.

Your petitioner further shows that the matters and things hereinbefore set forth, and each and every of them, appear of record in said cause in the supreme court of the State of Illinois, and a certified copy of such record is presented to your honor with this petition.

The premises considered, your petitioner prays that a writ of error may issue, directed to the supreme court of the State of Illinois, commanding it to send the record and proceedings aforesaid, with
251 all things concerning the same, to the Supreme Court of the United States, at the next term thereof, and that the said defendants to the said bill of complaint be cited to appear and answer to said writ.

NORTHWESTERN FERTILIZING COMPANY,
ROBT. W. RALSTON, *Vice-Pres.*

252 UNITED STATES OF AMERICA,
Northern District of Illinois, ss;

Robert W. Ralston, being first duly sworn, on his oath says that he is vice-president of the said petitioner, The Northwestern Fertilizing

Company, and hereto duly authorized; that he has heard read the foregoing petition, and knows the contents thereof, and that the same is true in substance and in fact, except such matters as are therein stated upon information and belief, and that as to those matters he believes it to be true.

ROBT. W. RALSTON.

Sworn and subscribed before me this 12th day of October, A. D. 1874.

WM. H. BRADDEY,
Clerk Cir. Court U. S., N. Dist. of Ills.

253 (Indorsed:) Supreme Court of the United States. The Northwestern Fertilizing Company vs. The Village of Hyde Park et al. Petition for writ of error.

UNITED STATES OF AMERICA, *ss:*

On this petition writ of error is allowed, without supersedeas, on filing bond for costs, &c., in penalty of [$3,000] $500.

D. DAVY, *Judge.*

Filed Octr. 24, 1874.

C. D. TRIMBLE, *Clerk.*

9 o'clock a. m.

254 UNITED STATES OF AMERICA, *ss:*

The United States of America to the honorable the judges of the supreme court of the State of Illinois, greeting:

Because in the record and proceedings, and also in the rendition of the judgment of a plea which is in the said supreme court of the State of Illinois, before you, or some of you, being the highest court of law or equity of the said State in which a decision could be had in the said suit between The Northwestern Fertilizing Company and The Village of Hyde Park, Chauncey M. Cady, W. E. Hale, A. D. Waldron, Lucius G. Fisher, E. G. Clarke, M. Doyle, J. M. Barney, Lester Bradner, jr., and H. Vanderbilt, wherein was drawn in question the validity of a statute of, and the authority exercised under, said State of Illinois, on the ground that they were repugnant to the Constitution or laws of the United States, and the decision was in favor of such their validity, and wherein rights, privileges, and immunities were claimed under the
255 Constitution of the United States, and the decision was against the rights, privileges, and immunities specially set up and claimed under such Constitution, and manifest error hath happened, to the great damage of the said Northwestern Fertilizing Company, as by its complaint appears, we, being willing that the error, if any hath been, should be duly corrected, and full and speedy justice done to the parties aforesaid in this behalf, do command you, if judgment be therein given, that then, under your seal, distinctly and openly, you send the record and proceedings aforesaid, with all things concerning the same, to the Supreme Court of the United States, together with the writ, so that you may have the same at Washington on the fourth Monday of October instant, in the said Supreme Court to be then and there held, that, the record of proceedings aforesaid being inspected, the said Supreme Court may cause to be further done herein, to correct that error, what of right and according to the laws and customs of the United States should be done.

256 Witness the honorable Morrison R. Waite, Chief-Justice of the

said Supreme Court, the fifteenth day of October, in the year of our Lord one thousand eight hundred and seventy-four.

[SEAL.] WM. H. BRADLEY,
Clerk.

257 (Indorsed:) Supreme Court of the United States. The Northwestern Fertilizing Company vs. The Village of Hyde Park et al. Writ of error. Filed Octr. 24, 1874. C. D. Trimble, clerk. 9 o'clock a. m.

257 UNITED STATES OF AMERICA, *ss:*

To The Village of Hyde Park, Chauncey M. Cady, W. E. Hale, A. D. Waldron, Lucius G. Fisher, E. G. Clarke, M. Doyle, J. M. Barney, Lester Bradner, jr., and H. Vanderbilt, trustees of said village, greeting:

You are hereby cited and admonished to be and appear at a Supreme Court of the United States to be holden at Washington on the fourth Monday of October instant, pursuant to a writ of error filed in the clerk's office of the supreme court of the State of Illinois for the northern grand division, wherein The Northwestern Fertilizing Company is plaintiff in error and you are defendants in error, to show cause, if any there be, why the judgment in the said writ of error mentioned should not be corrected and speedy justice should not be done to the parties in that behalf.

Witness the honorable David Davis, one of the justices of the Supreme Court of the United States, this sixteenth day of October,
258 in the year of our Lord one thousand eight hundred and seventy-four.

DAVID DAVIS,
One of the Justices of the Supreme Court of the United States.

259 UNITED STATES OF AMERICA,
Northern District of Illinois, ss:

John J. Herrick, being first duly sworn, on his oath says that he served the within citation on the within-named defendants in error this 24th day of October, A. D. 1874, by delivering a true copy of the same to Messrs. Hitchcock & Dupee, attorneys and solicitors of record for said defendants in error in said supreme court of the State of Illinois, and also by delivering a true copy of the same to Edmund E. Ryan, one of the trustees of said village of Hyde Park.

JOHN J. HERRICK.

(Indorsed:) Supreme Court of the United States. The Northwestern Fertilizing Company vs. The Village of Hyde Park et al. Citation.

We hereby accept service of the within citation by a true copy of the same delivered to us this 24th day of October, A. D. 1874.

Attorneys for Defendants in Error.

Filed Octr. 24, 1874.

C. D. TRIMBLE, *Clerk.*

2 o'clock p. m.

Subscribed & sworn to before me Oct. 24, 1874.

E. A. DRUMM, *U. S. Com.*

260 Supreme Court of the United States.

THE NORTHWESTERN FERTILIZING COMPANY
vs.
THE VILLAGE OF HYDE PARK AND CHAUNCEY M. Cady, W. E. Hale, A. D. Waldron, Lucius G. Fisher, E. G. Clarke, M. Doyle, J. M. Barney, Lester Bradner, jr., and H. Vanderbilt, trustees of said village.

Know all men by these presents that we, The Northwestern Fertilizing Company and Richard C. Meldrum and Robert W. Ralston, are held and firmly bound unto The Village of Hyde Park and Chauncey M. Cady, W. E. Hale, A. D. Waldron, Lucius G. Fisher, E. G. Clarke, M. Doyle, J. M. Barney, Lester Bradner, jr., and H. Vanderbilt in the sum of five hundred dollars, to be paid to the said Village of Hyde Park, Chauncey M. Cady, W. E. Hale, A. D. Waldron, Lucius G. Fisher, E. G. Clarke, M. Doyle, J. M. Barney, Lester Bradner, jr., and H.
261 Vanderbilt, their executors or administrators, to which payment, well and truly to be made, we bind ourselves, and each of us, jointly and severally, by these presents, and each of our heirs, executors, and administrators, firmly by these presents, sealed with our seals and dated this sixteenth day of October, A. D. one thousand eight hundred and seventy-four.

Whereas the above-named The Northwestern Fertilizing Company late prosecuted a writ of error to the Supreme Court of the United States to reverse the judgment rendered in the above-entitled action by the supreme court of the State of Illinois:

Now, therefore, the condition of the above obligation is such, that if the above bounden, the Northwestern Fertilizing Company, shall prosecute its said writ of error to effect, and answer all costs if it shall fail to make good its plea, then this obligation shall be void; otherwise to remain in full force and virtue.

262 (Signed) NORTHWESTERN FERTILIZING CO., [SEAL.]
R. W. RALSTON, *V. Pres.*
SEAL OF THE NORTHWESTERN FERTILIZING C'. RICHARD C. MELDRUM. [SEAL.]
ROBERT W. RALSTON. [SEAL.]

Attest:
(Signed) H. W. RALSTON, *Sec'ty.*

Taken & approved by—
(Signed) DAVID DAVIS,
Judge, &c.

OCTOBER 16TH, 1874.

STATE OF ILLINOIS, *ss:*

I, Cairo D. Trimble, clerk of the supreme court in and for the northern grand division of the State of Illinois, do hereby certify the above and foregoing to be a true copy of a bond for costs in a certain cause entitled in this court The Northwestern Fertilizing Company vs. The Village of Hyde Park, which bond aforesaid was filed in this office on the 24th day of September, A. D. 1874.

Witness my hand and the seal of said supreme court, at Ottawa, in said State, this 31st day of October, A. D. 1874.

[SEAL.] C. D. TRIMBLE, *Clerk.*

(Indorsed:) Copy. Supreme Court of the United States. The Northwestern Fertilizing Company vs. The Village of Hyde Park et al. Bond for costs. Filed Octr. 24, 1874. C. D. Trimble, clerk. 9 o'clock a. m.

(Indorsement on cover:) No. 245. The Northwestern Fertilizing Company, plaintiff in error, vs. The Village of Hyde Park, Chauncey M. Cady, W. E. Hale, A. D. Waldron, L. G. Fisher, E. G. Clarke, M. Doyle, J. M. Barney, L. Bradner, & H. Vanderbilt, trustese of said village. Illinois sup. ct. Filed 27th November, 1874.

SUPREME COURT OF THE UNITED STATES.

THE NORTHWESTERN FERTILIZING CO.,

vs.

THE VILLAGE OF HYDE PARK.

POINTS, AUTHORITIES AND ARGUMENT

FOR APPELLANTS.

BY

LEONARD SWETT.

CHICAGO:

PRESS OF BEACH, BARNARD & CO., LEGAL PRINTERS, NO. 104 RANDOLPH STREET.

1875.

SUPREME COURT OF THE UNITED STATES.

THE NORTHWESTERN FERTILIZING COMPANY

vs.

THE VILLAGE OF HYDE PARK.

POINTS AND AUTHORITIES FOR APPELLANT

The appellant was authorized by its charter:

1. To establish and *maintain* works for the purpose of manufacturing and converting dead animals and other animal matter into a fertilizer.

2. To establish and *maintain* in the City of Chicago, for the *purpose* of receiving and *carrying off*, from and out of said city, any and all offal, etc.

3. By necessary implication, to transport the offal and other animal matter received from its depot at Chicago, to its manufactory at Hyde Park.

I.

THE EFFECT OF APPELLANT'S CHARTER, IRRESPECTIVE OF ANY CONSTITUTIONAL RIGHTS WHICH MIGHT BE ACQUIRED BY ITS ACCEPTANCE, WAS TO SECURE TO IT IMMUNITY FROM PUBLIC PROSECUTION FOR ACTS AUTHORIZED THEREBY.

Harris v. *Thompson*, 9 Barb., 3.
Stoughton v. *State*, 5 Wis., 297.
Niederhouse v. *State*, 28 Ind., 258.
People v. *Law*, 34 Barb., 514.
Trustees v. *Utica*, 6 Barb., 313.
Hilliard on Torts, Vol. I, 550.

What the State itself could not do, would be equally beyond the power of the village of Hyde Park, a creature of the State possessing only delegated powers.

Cooley's Const. Limit., 192.
Petersburg v. *Metzger*, 21 Ills., 205.

II.

IRRESPECTIVE OF ANY RIGHTS ACQUIRED BY APPELLANT, WHICH WOULD RENDER A REPEALING LAW INVALID, THERE HAS IN FACT BEEN NO REPEAL OF ITS CHARTER.

1. *The charter of the Town of Hyde Park, passed in* 1869, *being a grant of general power conferred in general terms did not repeal or abrogate the appellant's special charter.*

The doctrine of repeal by implication is not favored by the law, and is never resorted to except where the repugnance or opposition is too clear and plain to be reconciled.

Bruce v. *Schuyler*, 4 Gilm., 372.
Supervisor v. *Campbell*, 42 Ills., 492.
Hume v. *Gossett*, 43 Ills., 299.
People v. *Barr*, 44 Ills., 201.

A subsequent law which is general, does not repeal or abrogate a former one which is special.

State v. *Minton*, 3 Zab., 529.
State v. *Jersey City*, 5 Dutch, 170.

Tracy v. *Goodwin*, 5 Allen, 409.
Town of Ottawa v. *County of LaSalle*, 12 Ills., 339.

If without the proviso inserted in the charter of 1869, that charter and appellant's charter could be so construed as to be reconciled ; the addition of that proviso does not in any way impair the rights of appellant.

First. It was clearly inserted for appellant's benefit, and will not be so construed as to operate to its injury.

Tyson v. *Posthelwaite*, 13 Ills., 727.
Raym., 397.
Hob., 215.
Boone v. *Juliet*, 1 Scam., 258.

Second. This proviso should be construed as a limitation upon such powers as the Town of Hyde Park could lawfully exercise as against appellant, notwithstanding its charter, and not as a recognition of any right to enforce other powers.

Third. This proviso is not an affirmative enactment, but is merely a limitation, and such a limitation having expired, the original act to which it is attached is to be construed in the same light as though such limitation had never existed.

2. *The rule of construction that a subsequent general law does not repeal a former special law, applies with even greater force to the general law, under which the Village of Hyde Park is now organized.*

III.

IF THESE LAWS COULD BE SO CONSTRUED AS TO EXPRESS AN INTENTION TO QUALIFY THE AUTHORITY CONFERRED BY APPELLANT'S CHARTER, THEY ARE MERE GRANTS OF POWER TO CHANGE THE LAW, AND DO NOT *ipso facto* WORK A REPEAL.

Eaton v. *Graham*, 11 Ills., 619.

IV.

IF THE LEGISLATURE HAS DELEGATED TO THE TOWN OR VILLAGE OF HYDE PARK THE POWER TO REPEAL THE APPELLANT'S CHARTER, THERE HAS BEEN NO EXERCISE OF THAT POWER.

1. *The ordinances which the town or village of Hyde Park have passed are general ordinances, and they will not be construed as repealing appellant's special charter.*

2. *The particular ordinance in question is unreasonable, and therefore void, and can not have the effect of repealing a law.*

Austin v. *Murray*, 16 Pick., 121.

3. *The ordinances passed by the town of Hyde Park were passed at a time when it was expressly prohibited by its charter from exercising its sanitary or police powers as against the appellant.*

V.

THE APPELLANT'S CHARTER IS A CONTRACT WITH THE STATE, AND THE LEGISLATURE HAVE NO POWER TO REPEAL, IMPAIR OR ALTER IT.

The general principle that charters of incorporation are contracts within the meaning of the Federal Constitution, is settled beyond controversy.

Dartmouth College v. *Woodward*, 4 Wheat., 518.
Armstadt et al. v. *Ill. Cen. R. R.*, 31 Ill.
Buffett et al. v. *The Great West. R. R.*, 25 Ill., 355.
State Bank of Ohio v. *Knoop*, 6 How., 360.

Jeff. Branch Bank v. *Skelly*, 1 Bl., 436.
Bridge Prop. v. *Hoboken Co.*, 1 Wall., 116.
Binghamton Bridge Case, 3 Wall., 51.
Home of Friendless v. *Rouse*, 8 Wall., 430.
Wash. University v. *Rouse*, Ibid., 439.

The State, by adopting the Federal Constitution, voluntarily imposed certain limitations upon the exercise of its sovereign powers, and cannot, in the exercise of the police power, or any other power, pass a law which impairs the obligation of its contracts.

The appelant's charter is a contract.

1st. The Legislature has conferred upon it a charter, which, under the principle of the Dartmouth College, clearly express an intention to contract.

2d. It is a contract with mutual considerations.

3d. The Legislature had ample power to make such a contract.

The Legislature possesses all of the powers of parliament, and is sovereign, except so far as those powers are limited by the National and State constitutions.

The power of parliament is absolute and uncontrolled, and it can do everything that is not naturally impossible.

4 Co. Inst., 86.
1 Black. Com., 160.

The Legislature possesses the same power, except as it may have been limited by the State or Federal constitutions, and a legislative act cannot be declared void, unless its conflict with one of these two instruments can be pointed out.

Cooley Const. Limit., 172.
Field v. *People*, 2 Scam., 81.
People v. *Marshall*, 1 Gilm., 572.
People ex rel. v. *Salomon*, 57 Ills., 50.

Courts can not declare a law void on general grounds, because it is unjust and oppressive, or because it is supposed to violate natural, social or political rights, or because it appears to violate the fundamental principles of republican government, or because it is opposed to a spirit supposed to pervade the Constitution but not expressed in words.

Cooley's Const. Limit., pp. 164–168, 169–171.

4th. There is nothing in the nature of the subject-matter of the contract which renders it invalid.

First. The legislature is paramount in its power to pass laws which embody the elements of a contract as in every other power, and courts can not question its motives, or determine the policy or justice of its laws.

The great commercial channels must not be obstructed. The slaughtering of animals is a necessity, and its increase since the litigation commenced has been more than 1,000,000 animals annually. The whole city must not be destroyed by it, and the legislature have the right, and it is its duty to locate the business, similar to the complainants, as it would be within its powers and duties to establish a quarantine where disease is confined and limited, although such establishment might inconvenience, injure or annoy the few for the conservation of the public good.

Police regulations must not be in conflict with any of the provisions of the charter of the corporation, and must not, under pretense of regulation, take from the corporation any of the essential rights and privileges which the charter confers.

Cooley's Const. Limit., 577.
G. & C. U. R. R. Co. v. *Appleby*, 28 Ills., 284.
Washington Bridge Co. v. *State*, 18 Conn., 53.
Pingray v. *Washburn*, 1 Aikin, 264.
Miller v. *N. Y. & E. R. R. Co.*, 21 Barb., 577.
People v. *Jackson & Mich. R. R. Co.*, 9 Mich., 307.

People v. *Platt*, 17 Johns., 195.
Bailey v. *R. R. Co.*, 4 Harring, 394.
Miller v. *N. Y. & E. R. R.*, 21 Barb., 564.
Conway v. *Taylor's Exrs.*, 1 Bl., 612.
State v. *Noyes*, 47 Maine, 169.
State v. *Jersey City*, 5 Dutcher, 170.

Charters which limit the exercise of plainly defined and recognized sovereign powers have been repeatedly sustained as binding contracts, the obligation of which could not be impaired.

New Jersey v. *Wilson*, 7 Cranch., 164.
Piqua Bank v. *Koop*, 16 Harr., 369.
Home of Friendless v. *Rouse*, 8 Wall,, 438.
Washington University v. *Rouse*, 4 Id., 439.
Atwater v. *Woodbridge*, 6 Conn., 223.
Herrick v. *Randolph*, 15 Vt., 525.
State Bank v. *People*, 4 Scam., 303.
Ill. Cent. R. R. v. *McLean*, 17 Ills., 291.
Binghamton Bridge, 3 Wall., 352.
Bridge Proprietors v. *Hoboken*, 1 Wall., 131.
B. & S. R. R. v. *S. & R. R. R.*, 2 Gray, 2.
Conway v. *Taylor's Exrs.*, 1 Black, 612.
Caston v. *Brush*, 25 Wendt., 630.
McRoberts v. *Washburn*, 10 Minn., 23.

VI.

IF THE NECESSITIES OF THE PUBLIC DEMAND THAT THE APPELLANT'S FRANCHISE BE TAKEN AWAY, THE APPROPRIATE REMEDY IS BY CONDEMNATION UNDER THE RIGHT OF EMINENT DOMAIN.

Cooley's Const. Limit., 556, and cases cited.
Piscataqua Bridge v. *N. H. Bridge*, 7 N. H.

Central Bridge Corporation, v. *Lowell*, 4 Gray, 474.

West River Bridge v. *Dix*, 6 How, 507.

Annington v. *Barnett*, 15 Vt., 745.

Boston Water Power Co. v. *B. & W. R. R.*, 23 Pick., 239.

Boston & Lowell R. R. Co. v. *Salem & Lowell R. R. Co.*, 2 Gray, 236.

VII.

THE RIGHT TO EQUITABLE RELIEF FOLLOWS LEGALLY, FROM THE PRECEDING PROPOSITIONS, AND THE FACTS DEVELOPED BY THE EVIDENCE.

Boston & Lowell R. R. Co., v. *Salem & Lowell R. R. Co.*, *supra.*

Craton Turnpike v. *Kider*, 1 Johns. Ch., 611.

Livingston v. *VanDusen*, 9 Johns., 507.

High on Injunctions, Sec. 318, and cases cited.

LEONARD SWETT,

For Appellant.

SUPREME COURT OF THE UNITED STATES.

THE NORTHWESTERN FERTILIZING COMPANY

vs.

THE VILLAGE OF HYDE PARK.

STATEMENT.

In the year 1867, the State, by a charter of its Legislature, proposed that certain individuals under a corporate organization might establish depots in the city of Chicago, for the reception of all offal, dead animals and animal matter, deliverable by the city or by individuals; also that a factory for its conversion into an agricultural fertilizer might be established south of a certain line, and about fifteen miles away, and that two hundred and fifty thousand dollars might be invested in this business, under the express guarantee that it should continue for fifty years.

The business thus proposed to be chartered was experimental, and grew out of public necessity. It was unprofitable and disagreeable, but the security of *time* thus offered by the contract induced an acceptance of the charter offered by the State, in the hope that experience might lessen the obstacles, and in the end render it profitable.

The individuals have faithfully performed all the obligations incurred by the acceptance of the charter. The corporation has

been organized, the depots established, the factory built at the point designated, and all the offal and animal matter offered by the city or by individuals has been received and treated in a manner constantly improving, and the most scientific now known. The two hundred and fifty thousand dollars has been invested, and about $200,000 within five years have been expended in experiments and inventions by which the offensive elements of the business have been largely overcome.

Besides these facts it is not unimportant to consider that this franchise, this expenditure and the necessities of the situation, have developed a new industry, and utilized a new element of wealth. Previously nearly all the offal and blood produced by the slaughtering of animals for human consumption in America, floated away upon streams of water, and its fructifying power was lost. Not even in Europe was the material, upon a large scale, properly utilized. Only small portions have been used in chemists' laboratories and factories, while poverty and want have forced the consumption of the larger portions for human food. Thus, in the main, the use has been to misapply the material, and the death roll, and not the aggregate of wealth, has been increased.

Since its successful and proper utilization in Chicago by the appellants, their example has been followed elsewhere, and much of what was formerly wasted or misused, after being properly treated, now passes into and fructifies the soil of worn-out farms in New England, and the poor cotton lands of the South, adding millions annually to the wealth of the world.

Neither favor nor disfavor can ever in the law be the source of a right; yet the interest of the ward is guarded with scrupulous care, while relief to parties engaged in enterprises of doubtful morality is not hastily extended. If any legislative franchises should be favorably considered, they are those which utilize new elements of wealth, and especially one which trimming to the line of nature, attaches to the forces of reproduction what human want is constantly forcing back upon the line of decay.

Notwithstanding these facts are uncontradicted, it is contended that the State, in its discretion, and through the exercise of police powers, can now, without condemning and paying for them under its conceded rights of eminent domain, confiscate the very capital and property it has brought into existence under the guarantees of its protection.

In the light of the surrounding facts which this record presents, the franchise was created and the capital induced to conserve a public necessity. The sparsely settled region south of Chicago enabled the State at that time to get this public benefit and develop this industry without any appreciable annoyance to private individuals. Recently, some settlements have extended in that direction, and although the public good of the city is still conserved by the establishment, it is contended that the village of Hyde Park, through delegated police powers, may, in its discretion, and without compensation, take our property for the benefit of the local public there. We claim that private property cannot be taken for public use without just compensation. Our franchise is private property. Therefore, it cannot be taken without compensation.

THE CIRCUMSTANCES UNDER WHICH THE CHARTER WAS GRANTED.

To apply understandingly the legal principles involved, it is necessary to know the circumstances under which the Record shows the charter was granted, and the necessity which induced it.

Chicago, in reference to the handling and slaughtering of animals, is the largest market in the world, and the slaughtering and packing interest is the largest in the city. For packing purposes and for city consumption more than 2,000,000 of animals are slaughtered annually. This produces more than

2,000,000 gallons of blood, and more than 21,000 tons of offal after it has been steamed and the grease extracted in the tanks. The packing season, in which the most of this offal is produced, commences about the first of November and ends the first of March, and this gives daily, during that time, 135 tons of tank offal and 14,697 gallons of blood.

The business employs directly in the handling and slaughtering of the animals about five thousand men. Twenty thousand people are engaged in industries dependent upon it, and about one hundred thousand people obtain a livelihood by it. Large as the business is, it is the product of recent growth; the entire number of animals slaughtered here twenty years ago being less than 30,000, as against 2,000,000 now. At St. Louis, Council Bluffs, Dubuque, Burlington, Peoria, Cincinnati, in the West, and Allentown, Gordonsville, Philadelphia, Baltimore and Richmond, in the East, where slaughtering is done, they have rapidly flowing rivers, in which the offal may, without offensiveness, be wasted; but Chicago is absolutely without natural drainage.

The slaughtering and packing houses were originally located upon the Chicago river, and its north and south branches. These branches, flowing from northerly and southerly directions, unite within the city, thus forming one main stream which flows through its center into the lake. The river is muddy, the current sluggish, and its mou h, at the margin of the lake, upon a north and south line, is in the most populous part of the city.

In the early history of the packing business, the offal and blood was easily disposed of; but as the quantity increased, its disposition formed an odoriferous chapter in the history of the city. The first attempt was to bury it; and for this purpose the Bridewell prisoners were taken out in gangs and put to the work. The material was produced in the winter, and the prisoners taken out to bury it after it got lively in the spring. What effect it had upon the culprits as a reformatory measure, the record fails to show, but it gave no relief to the city, because, being produced in the winter, there was difficulty in getting it

buried, and the quantity was so great, the noxious gases still escaped.

In the vicinity of Thirty-first street, the ground was so long and so often covered with it, that a foot and a half of soil has been made by its decay. (Record, .) It also was scattered, generally, west and north-west and south-west of the city, and filled the river, until, without poetical illusion, affidavits could be obtained that it "smelled to heaven."

The city water works were located near the mouth of the river, drawing their supply for family consumption from the margin of the lake. Three thousand six hundred and thirty-six observations, taken at regular intervals during the last five years, show that the wind blew from the east, north-east and south-east *thirteen hundred and fifteen times.* The shore line of the city is so situate that all of these winds strengthen the natural current of the lake towards the shore, and blow the waters of the river back upon its mouth and the adjacent shore line. Out of the same number of observations within the same time, the wind blew from the west, north-west and south-west, *eighteen hundred and thirty-two times.* The city is so located that all of these westerly winds blew the noxious gases generated by the offal deposited upon the prairie into the city. Thus more than five-sixths of the time the wind either blew the putrid waters of the river back upon the margin of the lake, to be pumped into the reservoirs, and thence to be drank in the tea and coffee, or from the drinking cups of the citizens, or the city was filled with the breath of the pestilence from the west, leaving about one day in a week as a kind of Sabbath to recuperate on a square breath either from the north or the south, which did not bring the putrefactions in the air or the water. These facts made Chicago the natural ally of disease. The pestilence came here first and staid the longest.

This offal could not then, and cannot now, be taken out in barges and deposited in the lake, as in New York and Boston,

because most of it is produced in the winter when the river and the lake are frozen; and besides there is a strong current towards the shore where Chicago is located, which brings even soil from more northern regions, and, depositing it upon the shore, forms accretions of land in front of the city several feet each year. In the ocean, the salt water arrests decomposition, and its turbulence and the tides scatter the offal everywhere, and the fishes devour it. Here, the water is fresh, and generally calm, with no tide, and the fish are wholly inadequate to the lunch. A soon as decomposition commences, the offal rises to the surface ven if it sinks at first, so that 2,000,000 gallons of blood, de-, posited in the lake at Chicago, with a never-varying current towards the shore, would make the basin of the lake bloodier than the waters of Egypt, and 21,000 tons of offal would give its margin a fringe of rotten heads, legs, livers, entrails and lights.

The process of manufacturing an agricultural fertilizer from animal consists simply in drying it. If this can be done without decomposition, all the ingredients valuable as a fertilizer are preserved, and no offensive odors arise. An animal residuum is thus obtained, which is odorless and will not decay, and contains ammonia. This, with the phosphate of lime produced by the bones when placed upon earth, is absorbed and fructifies the soil. If decomposition takes place before or during the drying, ammonia, the most valuable ingredient, escapes, and the value of the product is proportionately lessened. This ammonia is what constitutes the offensive odor of decay; therefore, in porportion as the drying can be effected without offensiveness or decay, in the same proportion is the profitableness of the business increased, and the public annoyance lessened. In all cities where slaughtering up to this time had been carried on, substantially all of this material had been wasted; hence a necessity had been felt of locating the business where there was natural drainage. The junction at an early day of nearly all the railroads traversing the country north-

westerly, westerly, and south-westerly at Chicago, of necessity made this point an emporium of trade, and the surplus cattle and hogs once brought here, the laws of commerce, and the twenty-five per cent. saved in transporting the animal to the point of consumption in barrels and without the weight of the offal, rather than on foot, forced the slaughtering to be done here.

The first relief attempted by private individuals, was made by Wahl Bros., who undertook to utilize the offal in the vicinity of the city. The manufacture of a fertilizer from raw animal matter in quantities was then unknown, and the process they adopted was to collect the material in the winter, and pile it up in sheds and spread it out in the spring when it thawed. This was done first in 1864, but within two years the business provoked incendiarism, and the fire drove them off.

The effect of this attempt was to develop a mercantile value to the material; and hence a region of country was sought where the public would be relieved by the isolation of the works.

THE PLACE WHERE THE WORKS WERE PERMITTED TO BE LOCATED.

The point fixed upon is at the mouth of the Calumet River, about fifteen miles south by south-east from the central part of the city, and substantially the same direction from the village of Hyde Park, and also south of the dividing line between towns thirty-seven and thirty-eight, as required by the charter.

To understand the country when Wahl Bros. located their works at the Calumet, or Ainsworth, in 1866, your Honors have only to imagine the world when it was without "form and "void," or a better translation, when it was emptiness and deso-

lation, " when darkness was upon the face of the deep," and the old pre-Adamite Saurians fought or sported together.

" The whole surface of the ground from the Hyde Park Hotel about eight or nine miles to the factory," says Wahl (Record,) " was an alternation of sand hills and swamps, the whole country being submerged with water during the spring months. Shortly after leaving the Hyde Park Hotel there was a great marsh a mile or so in extent. After that there was a strip of dry land along the lake, and the balance was a marsh clear down to the factory. From Hyde Park Hotel ten miles south and three or four miles back from the margin of the lake, I should think three-quarters of the country was overflowed with water, * * within a radius of five miles (from the factory) three-quarters of the land was covered with water in the spring until about the first of June. I looked upon the whole country as a swamp; I don't know that I would have given fifty dollars for the whole of it. When we located at Ainsworth we thought we were going into a country where no human being could get. *It was just the country we thought for doing a stinking business.*" * * " Between the Hyde Park Hotel and the factory (61) there was one little saloon ' (to save the traveler from the baleful influence of the water) ' called the Half-Way House. This was the only house, and this was about two miles south of the Hyde Park Hotel. There was also a little hut at Clark's Point, and an old house at the Calumet light house, and also another house belonging to a man by the name of Cain. Otherwise there was no settlement from the Hyde Park Hotel to the Calumet river. In fact, there were not over two or three houses south of where the reform schools are (about eleven miles.) The distance from 22d street to the factory is about thirteen miles."

The selection was as judicious in reference to the points of the compass and the prevailing winds, as the surface and condition of the country.

On page of the Record, observations of the wind for

seven years are given. There are 6,210 observations. The factory from Chicago and Hyde Park is about south by half south-east. The wind is from the south and south-east very much less than from any other points of the compass. Out of the whole period of the seven years it blew from the south 366 times, or about one-seventeenth of the time. From the south-east 780 times, or about one-eighth of the time. Assuming it blew from south by half south-east an average of the times between the observations south and south-east, the people of Hyde Park only have a wind from the factory about one-tenth of the time, or 36 days in the year, or once in ten days or two weeks, and from other directions where it would blow the smell away from these places, and over the lake or over the swamps, 334 days out of the year.

Wahl Bros. conducted the business at Ainsworth from 1866 to 1868, when the North Western Fertilizing Company was chartered under the act referred to, and since then the institution has been owned and managed by it.

THE PRESENT CONDITION OF THE COUNTRY.

"Almost everything in that country," says Mr. Cady, the president of the trustees of the village, "has grown up since 1867. * * Between the cluster around Ainsworth and Cornell, there are only two or three houses, but on the lake shore there are several new houses being built, as one goes from the factory up towards Hyde Park. * * There is also a little settlement called Park Side; there are probably thirty or forty houses in this settlement." Taking the country as described by Wahl when the factory was first located, and now, there is only this difference; then it was a swamp overflowed and had had no roads, now it is a swamp ditched and has roads. Considering it is nine miles from the Hyde Park Hotel to the factory,

and considering a strip of country for a distance of four miles back from the lake, and giving to it 118 houses at the factory, 60 at Cornell, 30 at Park Side, and we have altogether 208 houses to 36 square miles, with, as Mr. Cady says, several new houses being built; and deducting 45 houses for the men who work in the factory, and we have an average of about four houses to the square mile for nine miles toward the city. This is the public for whose benefit, in the main, the appellants' property is proposed to be taken and destroyed, and the offal locked up in a great city, or the packing business banished from it.

From the Hyde Park Hotel towards the city, the Record shows there is a compact, city-like settlement for two miles north and south, and about an equal distance back from the lake shore. This is the body of the village of Hyde Park. This is where the inhabitants of town live. The Calumet swamps simply illustrate its jurisdiction. Of course, in this matter-of-fact description, I leave out all the paper cities, and the high-sounding names—Marathon avenue, the Appian Way and that imaginary Park, on Stony Island, called the Elysian Fields, where in fact omnibus horses are pastured, and the boys kill snakes.

Immediately west and north-west, and flanking the side of the densely populated part of Hyde Park, and not over two miles from the center of it, the Record shows the Union Stock Yards are located where now nearly all the slaughtering is done, and all sorts of rendering is carried on, and where, the Record shows, there is an establishment just like the Northwestern Fertilizing Company, running all the year, and consuming from 3,000 to 5,000 tons of offal. (Record, 74.) On the tenth of January the arrests of the train men taking offal to the Northwestern Fertilizing Company were made. The packing season was its height. For the next ten days, until the injunction opened the passage, the offal and blood had to be dumped there. This accumulation covered two acres of ground with

livers, lungs, entrails and blood from two to six feet deep. (Record, 93.) It froze solid as a rock, and had to remain there until after the suit was tried, the last of March, and every few days, as the warm weather came, our people got sickening gusts from it. The observations of the winds, (given Record, 29) show that it blows from the stock yards over the thickly-settled part of Hyde Park, from the west and north-west nearly one-third of the time, and from south by half south-east, or from the appellants' factory, only one-tenth of the time.

The character of the business when it was chartered.

The charter provides that "said corporation may establish and maintain depots in the city of Chicago, in said county, for the purpose of receiving and carrying off from and out of said city, any and all offal, dead animals, and other animal matter which they may buy, or own, or which may be delivered to them by the city authorities, or other persons."

Section 4. "Said corporation is hereby authorized and empowered to establish and maintain chemical and other works at the place designated herein, for the purpose of manufacturing and converting dead animals, and other animal matter, into an agricultural fertilizer, and into other chemical products, by means of chemical, mechanical, and other processes."

This business, when chartered, had been carried on two years in the vicinity of the city, and two years at Ainsworth, south of the limit designated, and where the factory now is. Up to that time, only chemical processes had been used. The parties were then trying, and their successors have since succeeded in introducing, mechanical processes. The process then consisted simply of the admixture of chemicals to retard decomposition,

and the result was a residuum of such animal matter as failed to decay, and so much of ammonia as failed to escape. The material as then used was the offal and blood mixed together, the soft parts, such as livers, lungs, and entrails in their natural state, and not steamed. The tank offal alone contains about nine per cent. of ammonia, and the blood contains fourteen. Therefore, combined, it contains somewhere between nine and fourteen. Of this, but 1⅝ per cent. of ammonia (Record, 83), was retained, leaving probably ten or twelve per cent. to escape. The number of cattle slaughtered annually, from 1864 to 1868, averaged about 120,000, as against 147,000 now, and 700,000 hogs against 1,200,000 in 1873. So it cannot be said that the business was so small as not to be comprehended, or that its offensive features were not known, but on the contrary it was substantially as large as now. Indeed, then it must have been thoroughly offensive, as Wade says he used frequently to smell it where he lives on Twenty-second street, thirteen miles away, and once, he says, he smelled it in Lake View, across the curve of the lake in which Chicago was situated, and some twenty miles away.

What improvements in the business, as chartered, have been made by the appellants.

We concede it to be the duty of the appellants to carry on the business chartered with as little offensiveness as it can reasonably be done. We also concede the right to the city of Chicago and the village of Hyde Park, by proper police regulations, to compel the careful handling of the material, to demand its prompt removal, and to compel the appellants to adopt, with reasonable promptness, all of the accepted and tested improvements which may be discovered to lessen the offensiveness.

With this concession, we invite your Honors' attention to what improvements have been made, and what obstacles remain.

The offal, in reference to facility of manufacture and value may be divided into three classes. The blood is the most valuable ; the meaty and bony, or hard tank offal is next in value ; and the livers, lungs, and entrails, which for all purposes yet discovered are valueless, and are thrown away whenever it can be done, and would be thrown away here if there was any place where they could be thrown. The difficulty lies in the fact that eighty per cent. out of 130 is of water. Formerly only the hard offal was steamed in the tanks, and the blood, livers lungs and entrails were delivered to Wahl Bros. in a natural state. The blood was coagulated by chemical admixture, the soft tank stuff steamed at the factory, and then the material was all spread out upon the ground together. When the North-Western Fertilizing Company took possession, they constructed a machine to cut up the soft tank stuff so that the water could be pressed out of it. Then for two years they buried it to get rid of it ; then they constructed a five-story building, so that in an immense inclosed pile it might be dried by spontaneous heat; then the entire material was pressed in the shape of a brick, and laid out to dry—but it would never dry ; then it was spread out on shelves, in a compartment, and heated air introduced ; then a revolving cylinder was resorted to, which, after repeated changes and delays, has become so far successful that now, in any given twenty-four hours during the packing season, about eighteen tons of hard offal can be taken from the tanks to the factory, made into an agricultural fertilizer in any one of these machines without any offensiveness, and bagged up and shipped off within twenty-four hours. These experiments and improvements have cost the Company about $200,000 in five years, which is all the profits they have made by the entire business, reckoning no interest on their capital invested, and after making every officer of the Company but one render his services with-

out salary (Record, 87, 96). The great difficulty with the establishment has been that the processes were so slow, the working up of the material produced in the packing season took all summer.

In the development of their dryer, the first success was to get it so that it would complete the work after the drying had been partly accomplished in the sun. The next advance was to get it to dry the material at once. The next thing was to get machines enough to dry *all* the material which could be dried, without delay; and on that very day, January 1st, 1873, the factory was destroyed by fire. The arrests made by the village of Hyde Park then began, but notwithstanding, by working night and day, the thermometer often fifteen degrees below zero, the factory was reconstructed and running again in thirty days, and, at the time of the trial below, about the first of April, it had a capacity equal to the daily consumption of all the offal produced by the entire city.

We have stated that the process of manufacture was simply a drying process, and it is evident if this could be done at once, no offensive odors would arise more than in cooking. And here we come to the consideration of a difficulty which as yet the appellants have not been able practically to overcome. The hard tank stuff, as we have stated, can be utilized daily, and there will be no reasonable excuse hereafter for having any serious trouble about that. We concede it is our duty to get machines enough to work this matter up daily.

The blood as it comes from the animal is immediately coagulated by the admixture of sulphuric acid. It then becomes a solid, and can be shoveled. When it arrives at the factory, it is piled up and there it must remain for six weeks. The effect of the coagulation is to disintegrate the water in the blood from the other constituent elements comprising it. Yet these other elements hold this water, as a sponge does, until it passes off by natural drainage. It cannot be put through the machine until thus

drained. This fact, however, does not concern the public, for the elements of the blood thus coagulated do not decay. The amount of ammonia blood contains is fourteen per cent., and we get about fourteen. Hence there is no offensive smell to this material, although its manufacture is delayed. The mischief all lies with the soft tank stuff. This is now steamed in the packing-house tanks. At the same time the other offal is taken, the livers, lungs and entrails are conveyed, but separately, to the depot at the stock yards, and thence in box cars to the factory. Here it is immediately mixed with twenty-five per cent. of salt, or salt cake, and is piled up, where it must remain six weeks, until it becomes sufficiently dry to go through the machine. There is something in the steaming process which makes all the tank offal immediately take on decomposition. Even in cold weather, it cannot remain a day without becoming seriously affected. The chemicals put with it retard decomposition, but cannot absolutely prevent it, and remove what has commenced before the chemicals are applied. By the present process, heated air passes through the material, and through the smoke stack, into the atmosphere. Decomposition having begun in the offal, the steam generated by the drying is full of it, and passes into the atmosphere with or in the steam, and after decomposition has once begun, except by burning the steam, or condensing it, this offensiveness cannot be prevented. This burning or condensing of the steam we have not thus far been able to accomplish.

The record develops two ways in which this may shortly be done; but in basing business calculations upon these, we must remember that inventions come slowly, and as a rule, are worthless. Mr. Baugh says there are already sixty-four patents to overcome this difficulty, but all of them are practically worthless. One of these machines, in which there is hope of success, is that described by Mr. Allerton, and used at Communipaw. This condenses the steam, and runs it off in water into the ocean. Allerton never saw the machine but twice, and it is

a new invention, and really not tested. Besides, the water would, of course, be foul; and if we were to condense it, the quantity would be sixty tons a day, which with us would thoroughly pollute the Calumet river. Besides, again, at Communipaw, they run the soft tank stuff into the ocean, and can waste it, and if we could do that, the whole trouble would be gone.

The appellants also have a new process, which they are introducing, and which they believe will be successful, and which, if successful, will supersede and render worthless their present machine, which is all they have to show for $200,000. This is their benzine process. Their theory is that all the trouble arises in the tanking, and if the vapors of benzine could be used instead of the vapors of water, all difficulties would be solved. They bought this patented process, and were about to introduce it when the fire occurred. They have introduced it at Philadelphia, and had, prior to the trial below, utilized some twenty tons with it. Benzine is a most powerful antiseptic. Its vapor extracts twenty per cent. more of grease than the vapors of water, and prevents decomposition, so that all the material is dried without any offensiveness.

I.

The legal effect of the appellant's charter.

The complainant, by its charter, was expressly authorized:

1. To establish and *maintain* works for the purpose of manufacturing and converting dead animals and other animal matter into a fertilizer.

2. To establish and *maintain* in the City of Chicago, for the *purpose* of receiving and *carrying off*, from and out of said city, any and all offal, &c.

3. By necessary implication to transport the offal and other

animal matter, received from their depot at Chicago, to their manufactory at Hyde Park.

The effect of complainant's charter, irrespective of any constitutional rights which might be acquired by its acceptance, was to secure to it immunity from public prosecution for any acts authorized thereby.

The principle is established and illustrated by numerous authorities, that what the legislature has authorized, though injurious to the convenience, comfort, or health of the community, cannot be a nuisance. The State cannot punish what the State has authorized. In the language of one of the decisions: "It is a legal solecism to call that a public nuisance which is maintained by public authority."

In *Harris* v. *Thompson*, 9 Barb., 364, the plaintiffs erected a portion of a dam by authority from the State, while another portion was erected by the State itself. The defendants tore down and abated the dam as a public nuisance. Evidence was introduced tending to show that the dam obstructed navigation, overflowed highways, and caused sickness.

The court say: "The principle that it (the dam) could not be a nuisance in the condition in which the State allowed it to remain, seems unquestionable. It is a legal solecism to call that a public nuisance which is maintained by public authority. Even an act of a corporation, which would otherwise have been a nuisance, has been deemed lawful because authorized by its charter. Both bridges would have been considered nuisances, in Charles River bridge, and Warren bridge, if they had not been authorized by statute." (11 Pet., 420, 559.)

In *Stoughton* v. *State*, 5 Wis., 297, Stoughton was indicted for maintaining a mill-dam authorized by the Legislature, which, it was alleged, overflowed the highways, caused an accumulation of vegetable matter and animal substances, made the water of the pond stagnant and corrupt, and covered the surrounding lands with "noxious weeds, and decayed and putrid vegetable

and animal substances; by means whereof divers noisome, unwholesome, and deleterious smells and stenches, and unwholesome and infectious damps and fogs, did, and still do, arise, so that the air along and adjacent to said stream, public highways, and common roads, and dwelling houses, &c., became and was, and still is, corrupt and infected, to the great injury of the health, &c., of all the citizens of the State residing in the neighhood and passing thereby," &c. The accused was found guilty, and upon the question whether the indictment could be sustained, the court say:

"It is to be remembered that the act of the Legislature authorized the erection of the dam under certain territorial limits, and that for the purposes of this decision, it must be understood that it was erected within the limits designated. The question, then, is whether the Legislature, having competent authority so to do, authorizes a citizen to do an act, the State can prosecute the citizen criminally for doing the act thus authorized. * * * * It was contended by the counsel for the State, that the authority which was granted by the Legislature was only an authority to obstruct the navigation of the river by means of the dam, and that the intention of the body in passing the act could not have been to authorize such an erection as would cause sickness, and which would, on that account, be a nuisance. The answer to this suggestion is that there is no condition of that kind expressed in the act; the authority to erect the dam in the manner and at the place designated, is express and absolute. * * * We must hold that the Legislature had in view all the consequences which were to follow from doing an act which they authorized, and that the State cannot now punish an act as a crime, which it has said, in plain words, might be committed."

In *Neaderhousen* v. *The State*, 28 Ind., 258, the defendant was indicted for maintaining a mill dam which, it was alleged, was a nuisance. He pleaded not guilty, and a special plea alleging that he was authorized to construct the dam by a special act of

the Legislature. It was proved on the trial that the dam created a comparatively stagnant pool for a distance of from seven to ten miles. There was also evidence tending to show that it was injurious to the health of those living in the vicinity of the river above the dam; that it overflowed surrounding lands and highways.

The Court say:

" It is well settled that where a navigable stream within the State, and subject to its exclusive jurisdiction, is obstructed by a dam or otherwise, in pursuance of legislative authority, though the health of the neigborhood may be thereby impaired, or other injuries result to persons residing in the vicinity, the party making the obstruction is not thereby subject to a prosecution for erecting or maintaining a public nuisance, nor can the dam, or other obstruction be abated as such."

In a recent case decided in the Supreme Court of New York, a copy of which opinion we file with this argument, the Court say:

" The defendants' gas works were erected in 1849, quite at the easterly extremity of Twenty-first street, in the said city; and the company have ever since made and distributed gas therefrom extensively, for the purposes authorized. It is conceded that their buildings and processes are of the best, their servants careful, and that they have used due care and diligence in the business.

" The defendants were indicted for creating a nuisance, by unwholesome smells, smokes, and stenches, rendering the air corrupt, offensive, and unwholesome.

" It appears that persons residing near are much disturbed, and sometimes sickened by the offensive smell which pervades the air and penetrates their dwellings in certain rarified conditions of the atmosphere, particularly when an easterly wind prevails.

" The Court of General Sessions refused to hold that the act

of the Legislature and the entire absence of negligence on the part of the defendants was any defense.

" The power of the legislature is omnipotent within constitutional limits. It is sufficient to authorize railroads to be run through crowded thoroughfares, with locomotives, causing great disturbance to the citizens who reside near it, and exposing the residents and property to constant danger of fire from the sparks emitted from the engines. If unauthorized by statute, these acts would be a nuisance. The same power can authorize dams to be constructed and maintained for public purposes, although it may render the common air we breathe unwholesome, producing thereby disease and death in its vicinity. The good of the greatest number is regarded by the legislature as its justification for the extraordinary use of its power.

" If the railroad is carried on with the greatest skill and care, with every improvement and advantage known to science and experience, it is not a nuisance, although many are injured in property and personal security.

" 14 N. Y. 506. *Davis* v. *The Mayor, etc.*
" 4 Barn. & Adolph, 30. *Rex* v. *Pease.*
" 9 Bart., 350. *Harris* v. *Thompson.*"

These authorities establish the proposition that so long as the authority conferred upon the complainant by its charter was unrevoked by valid legislation, the complainant might maintain its works and carry on its business at the point designated; might maintain its depot at Chicago, and might transport the offal and animal matter, which it was authorized to receive there, from its depot to its factory, without incurring any criminal liability or subjecting itself to public prosecution. Although these acts might be offensive to the public, or even deleterious to the health of a portion of the community, yet, being sanctioned by the highest authority in the State, they could not be illegal or punishable by the State.

What the State itself could not do, would be equally beyond

the power of the village of Hyde Park, a creature of the State, possessing only delegated powers. Yet the village of Hyde Park, by the prosecutions we are seeking to enjoin, now claims the right to punish as illegal the very acts which the Legislature authorized to be done.

The Legislature authorized the complainant to carry on the business for the period of fifty years. The Village of Hyde Park, before six years have passed, declares the business a nuisance, and claims the right to punish by fine and imprisonment all persons connected with it. To sustain this alleged right it must be shown that the complainant's charter has been repealed, and the authority which it conferred revoked by some valid legislation.

We contend that:

II.

IRRESPECTIVE OF ANY VESTED RIGHTS ACQUIRED BY THE COMPLAINANT WHICH WOULD RENDER A REPEALING LAW INVALID, THERE HAS, IN FACT, BEEN NO REPEAL OF ITS CHARTER.

It is not contended that there has been an *express* repeal, but the charter of the town of Hyde Park, approved March 26, 1869, (Record, p. 102,) and the general law under which the village is now organized, (Record, p.) are both relied on as repealin it by implication.

The charter of 1869 provides that the board of trustees shall have power:

"To compel the owner or occupant of any grocery or cellar, tallow-chandler shop, soap factory, tannery or other unwholesome or nauseous houses or places, to cleanse, or remove, or abate the same, etc. (Sec. 8.) To restrain the running at large of cattle, etc. (Sec. 9.) To define and abate nuisances, etc. (Sec. 15.) To regulate, restrain, prohibit, or license breweries,

tanneries, packing-houses, distilleries, slaughter-houses, butcher-shops, stock yards, or establishments for the steaming or rendering of lard, tallow, offal, manure, or such other substances as may be rendered, boiled or steamed, and all establishments or places where any nauseous, offensive, unwholesome or immoral business may be carried on," etc.

These provisions embody a general grant of police powers to the corporation. They are in substance the same powers which it is customary to grant to all municipal corporations. The language is general, and the provisions are such as it would be eminently wise and proper to insert in the charter of any municipal corporation. They would apply as well to any rural town in the State as to the town of Hyde Park. Therefore we contend that:

The charter of 1869, being a grant of general powers conferred in general language, did not repeal or abrogate the complainant's special charter.

The principles which are to govern in determining whether a subsequent law repeals by implication a prior law are familiar, and have been repeatedly adopted by this Court. In *Bruce* v. *Schuyler*, 4 Gilm., 272, this Court says: "The doctrine of repeal by implication is not favored by the law, and is never resorted to except where the repugnance or opposition is *too clear and plain to be reconciled.*" So in *Supervisors* v. *Campbell*, 42 Ills., 492. "It is only when two acts are so inconsistent with each other that *both cannot be executed* that the latter is considered as repealing the former." And in *Hume* v. *Gossett*, 43 Ills., 299. "The repugnance between statutes must be so clear and plain that they can not be reconciled *to justify a resort to this doctrine.*" Again in *People* v. *Barr*, 44 Ills., 201. "If statutes are seemingly repugnant, it is the duty of the courts so to construe them that the latter shall not repeal the former by implication."

The principle that a subsequent law, which is general, does not repeal or abrogate a former one which is special, follows as a necessary conclusion from the general principles just quoted, and is well established by the authorities.

In *State* v. *Minton*, 3 Zab., 529, a Railroad Company was exempted by its charter from all taxes, except a certain per cent. on the cost of the road. The charter expressly reserved to the State the power of alteration and repeal. Subsequently, a general tax act was passed declaring *all lands* liable to taxation, and expressly repealing "all acts and parts of acts" not consistent with its provisions. Under this law a tax was assessed on the property of the corporation. The Court held that the charter was not repealed by the general law, and that therefore the tax was illegal. The Court say: "The words 'acts and parts of acts,' in the supplement are not to be construed as embracing charters of private corporations, or as affecting privileges or immunities granted to such, even though they may be repealable. The reasonable inference always is, that when the legislature intend to take away these, they will do it in express terms, and *e converso*, when they do not do it in express terms, they do not intend to do it."

The State v. *Jersey City*, 5 Dutch, 170, the charter of a railroad company authorized it to regulate the description and formation of carriages, engines, etc., that should be used on the road, and the time and manner of transportation.

The common council of Jersey City were vested by their charter with a general power "to declare nuisances by general law." In the exercise of this power, they adopted certain ordinances which conflicted with the authority granted to the railroad by its charter. In reference to the validity of these ordinances, the Court say:

"It is not to be presumed that the Legislature intended, by the grant of this general power, to enable the common council to repeal, in effect, the express powers granted by the charter of the prosecutors (the company). * * * The object of this provision was to vest in the company the entire management of the business of transporting freight and passengers; and, assuming that the legislature have the power to repeal by *ex-*

press words this section, which was denied by counsel upon argument, they will not be held to have done it by a grant of general powers, which can be exercised without confiicting with the provisions of their charter."

In *Tracy* v. *Goodwin*, 5 Allen, 409, constables of Boston were required to give bond to the city treasurer. A subsequent general law required that constables of cities and towns give bond to the inhabitants. The Court say: "It is no strained construction to say that the city of Boston, having a special act applying to this very case, is excepted out of the operation of the general statute."

This principle was recognized by this Court in the case of *The Town of Ottawa* v. *The County of LaSalle*, 12 Ills., 339. The Town of Ottawa was incorporated under a special act, passed in 1837. This act conferred upon it the power to license and regulate groceries within its limits, and the right to retain for *its own use*, the moneys received for licenses. In 1839, a general law was passed which provided that the president and trustees of incorporated towns should have the *exclusive privilege* of granting licenses to groceries within their incorporated limits; and that all sums of money which might be received for licenses, should be paid into the *county treasury*. The sole question in the case was, whether the subsequent general law had taken away the right conferred upon the town by its charter.

The Court, TREAT, C. J., say:

" This right continued in the corporation, unless it was taken away by the general law of the 2nd of March, 1839. In our opinion that law should not be so construed as to defeat the right. * * * If there is a repeal, it is by implication only. It is a maxim in the construction of statutes, that the law does not favor a repeal by implication. The earliest statute continues in force, unless the two are clearly inconsistent with, and repugnant to each other, or unless in the latest statute some express

notice is taken of the former, plainly indicating an intention to repeal it. And when two acts are seemingly repugnant, they should, if possible, be so construed that the latter may not operate as a repeal of the former by implication. Dwarris, 674; Bacon's Ab. Tit. Stat.; *D. Bowen* v. *Lease*, 5 Hill, 221; *Bruce* v. *Schuyler*, 4 Gilman, 221; *Kinney* v. *Mal'ory*, 3 Ala., 626; *Planter's Bank* v. *The State*, 6 Smedes & Mars., 628. *So, a subsequent statute which is general, does not abrogate a former statute which is particular.* Dwarris, 674. And a general law does not operate as a repeal of a special law, on the same subject, passed at the same session. 4 Pike, 410. The authorities are decisive on the question. There is no necessary repugnancy between the *general* law and the *special* act, but they can be easily reconciled, and allowed to stand together. Full effect may be given to both, without impairing the provisions of either."

By the complainant's charter, the legislature authorized the organization of a single corporation, and the investment of capital by this corporation alone for the specific purpose of carrying on a particular business, at a particular location. Here was a corporation created by special charter, and endowed with special privileges, to continue for fifty years. Did the legislature two years afterwards intend to impair their privileges by a general grant of such powers as are ordinarily granted to every municipal corporation? Both laws *can* be executed. Long before it was contended that the Town of Hyde Park had any right to enforce its ordinances as against the complainant, the town had adopted and was enforcing against other establishments just such general ordinances, as it now seeks to enforce against the complainant.

The occasion for the same general police powers would exist if there were no North Western Fertilizing company. In a territory as extensive as the town of Hyde Park, there must always be frequent occasion for the exercise of these general police powers. Except the special right of complainant out of

the operation of this law, and you do not render it inoperative. There is still occasion for the frequent and constant exercise of every one of these general police powers. The complainant's privileges may be preserved to it, and yet all these police powers may be exercised daily. Is the repugnance between the general language of the one law, and the particular language of the other "too clear and plain to be reconciled"? Are they so inconsistent with each other that both cannot be executed? Is the repugnance such as to justify a court in resorting to the doctrine of repeal by implication, when it is its duty to so construe them that the latter shall not repeal the former by implication?

In the charter of 1869, after the general grant of police powers, above quoted, the following *proviso* is inserted:

"*Provided*, however, that the sanitary and police powers conferred by the act, shall not be exercised by said Board of Trustees as against the North Western Fertilizing Company, or the Union Rendering Company, located at or near the Calumet river, in said town, until the full expiration of two years from and after the passage of this Act."

III.

IF WITHOUT THIS PROVISO THE CHARTER OF THE TOWN OF HYDE PARK AND THE COMPLAINANT'S CHARTER, COULD BE SO CONSTRUED AS TO BE RECONCILED, DOES THE ADDITION OF THIS PROVISO IN ANY WAY IMPAIR THE RIGHTS OF THE COMPLAINANT?

1. It is insisted in defendants' answer, that this *proviso* was inserted at the complainant's request. Whether that is so or not, it was clearly inserted for the complainant's benefit. It was designed to benefit and not to injure it. It was clearly inserted

through a misapprehension of the complainant's legal rights. The particular legislature which passed this law, either overlooked the fact that the complainant was organized under a charter, since in the same *proviso* they include the Union Rendering Company, an unincorporated, unlicensed institution, or they did not fully comprehend the immunity which its charter gave to it from public prosecution. In any event, the intention to benefit complainant by this *proviso*, can not be disputed; nor can it be denied that if this *proviso* is construed as a repeal of the complainant's charter, or as impairing any rights which it conferred, it will operate as an injury and not as a benefit.

It is a principle of construction, that, when the legislature passes a law, the manifest object of which is to extend a benefit, under a misapprehension or ignorance of the existence or effect of a former law, which extended a greater benefit than that provided by the new law, the first law is not repealed or affected by the last, so as to limit or abridge the benefit, and so as to restrict it within the limits of the last law, unless there are restrictive words showing an intention that no greater benefits shall be enjoyed than are provided in the last law.

In *Tyson* v. *Postlethwaite*, 13 Ills., 727, this principle is recognized. The Statute of Wills provided that when the husband died leaving no children, the widow should be entitled to one-half of the real estate, and the whole of the personal estate, and reserved to her the right of dower in the other one-half of the realty. The 13th section of the statute, in relation to dower, passed in 1845, provided that the widow of a husband dying without children might elect to have in lieu of dower, one-half of the real estate. The question was, whether this subsequent statute, conferring upon the widow a more limited right than the former law, repealed or limited it by implication.

The Court, CATON, J., say:

"The manifest object of the law was to extend the rights of the widow, and not to curtail them, which would be the case

should this be held to repeal the former law, and to contract them within the limits here prescribed. This section was introduced with the evident intention of benefiting the widow, and not for the purpose of injuring her. * * * The mere supposition by the legislature, to be inferred from a law which they have passed, that the previous law is different from what it in truth is, does not make the law as they supposed it was, or different from what it was in truth."

The Court then cite at length:

"Raymond, 397, Hob., 215, and *Boon* v. *Juliet*, 1 Scam., 258. In the case of Raymond a perpetual law had been passed, granting a revenue from strong liquors, and subsequently another law was passed, granting the same revenue for two years, and it was held that the last law did not repeal the first, but that the latter continued after the expiration of the former. In the case of Hobart a perpetual law was made, settling the prices of wine; and by a subsequent act, this perpetual act was continued till the end of parliament, 'Which continuance was resolved to be idle, for an affirmative continuance of a perpetual statute can not work an abrogation thereof.'" In the case of *Boon* v. *Juliet*, the territorial laws provided for holding slaves to service, by registering those under a certain age, and entering an indenture with those above that age. They also provided for holding the children of *indentured* slaves to service—males till the age of thirty, and females till the age of twenty-eight. There was no provision subjecting the children of *registered* slaves to service. In this state of the law the Constitution of 1819 was adopted. One of the sections of this Constitution provided for holding both *registered* and *indentured* slaves to service, with a *proviso* that children of *either* class should become free—males at twenty-one and females at eighteen. The Court, holding that it was in the power of the convention, if it had so intended, to make slaves of the children of registered as well as indentured parents, and treating the question as one of *construction* and not of *power*, said: "The *proviso*

was intended by the framers of the Constitution, as a limitation on the *supposed* pre-existing right of the master to the service of the children of registered servants for a greater period of time, and designed as an exception in favor of such children, founded, it is true, on the *mistaken supposition* that, under the territorial laws, they had been subjected to a greater period of service, and not as creating a liability to service. * * * It is most manifest that this *proviso* was intended as a mere limitation on the *imagined* right of the master to the service of the children. As no such rights existed, and as the *proviso* must be considered as an act intended for the benefit of and enlarging the rights of a certain class of persons, supposed to have been subjected to a period of servitude, * * I am clearly of the opinion that the children of registered negroes and mulattoes are unquestionably free."

The Court, in *Tyson* v. *Postlethwaite*, after citing these authorities, say :

"In the case at bar, the legislature adopted the fifteenth section of the dower act, evidently under a misapprehension of the extent of the rights guaranteed by law to the widow, and with the design of extending and not abridging them. * * In the case of the servants already referred to, while the convention, supposing they were bound to serve their masters from twenty-eight to thirty years, thought best, instead of abolishing the service altogether, to cut it down to eighteen or twenty-one years ; it by no means follows that, had the convention been aware of the fact that they were bound to no service, they would have imposed one to the same extent to which they were willing to allow a supposed existing service to continue. So, in the case of the law fixing the price of rum—supposing that the law would expire sooner, parliament was willing, when called upon, to affirmatively extend it to the end of parliament, yet it did not follow that, had the law-makers observed that the law was already perpetual, they would have been willing to limit its operation to the same term to which they affirmatively extended

it. And the same remark may be made in the case of the revenue granted out of strong liquors. So, in this case, while the legislature, feeling called upon to extend the rights of the widow, were only willing to go so far as to allow her to take absolutely; it by no means follows that, had they been aware that by the existing laws, she had even greater rights than this proposed to secure, they would have been willing to abridge those preexisting rights to the measure prescribed in the law which did pass under a misapprehension of those previous rights. * * The design of the law was to confer a benefit, and it should not be so construed as to work an injury, there being no restrictive words cutting off other rights than those granted."

2. If this proviso *could* be construed as recognizing, and thereby conferring upon the town the authority to exercise its police powers against the appellant, after the expiration of the two years, a reasonable construction would require that those powers be limited to such as could be exercised without impairing any of the essential rights which the complainant's charter conferred. We do not contend that the complainant's charter secured it absolutely from police regulation, but we do contend that it was protected in doing, with reasonable care, the acts which the charter authorized. The town of Hyde Park, in the absence of express prohibition, would have the right, by virtue of the general police powers conferred by its charter, to *regulate* the manner of carrying on the complainant's business and the transportation of its offal, by such reasonable regulations as would prevent negligence, but would not impair the rights conferred. But if prohibited by the Legislature it would not even have that right. In the infancy of the complainant's business, the Legislature did impose such a prohibition. It inserted a provision in the town charter of 1857 absolutely prohibiting any exercise of police powers, (Record, p. 176), and, pursuing the same policy, inserted the proviso in question in the town charter of 1869.

By this proviso it prohibited the town from exercising any of its " sanitary and police powers " as against the complainant. This was an absolute prohibition, and secured to the complainant complete protection. It might carry on its business in the most negligent and offensive manner possible, and it would still be secure from prosecution by the town. A greater degree of immunity was secured to it than even its charter conferred. When these prohibitions ceased to operate, the complainant became subject to such reasonable regulations as would prevent negligence or recklessness in the management of a business still legal, and the extent of its immunity would be measured by the authority conferred by its charter. By this construction force and meaning are given to this proviso, and the complainant's charter is preserved unimpaired.

Besides, the *proviso* that the sanitary or police powers should not be exercised at all, and afterwards, the *proviso* that such powers should not be exercised for two years, are not affirmative enactments, but are merely limitations, and such limitations having expired, the original acts to which they were attached are to be construed in the same light as though such limitations had never existed.

The rule of construction for which we contend applies with even greater force to the general law under which the village of Hyde Park is now organized.

This law is in general terms and contains the same general grant of police powers. It was passed without any reference to the town of Hyde Park, and without any knowledge or expectation on the part of the Legislature that that town would organize under it. It was passed without reference to any particular town or locality, for the benefit of such municipal corporations as chose to accept the powers which it offered. It cannot, therefore, be construed as having any reference to or in any way impairing the complainant's charter.

IF THESE LAWS COULD BE SO CONSTRUED AS TO EXPRESS AN

INTENTION TO QUALIFY THE AUTHORITY CONFERRED IN THIS CHARTER, THEY ARE MERE GRANTS OF POWER TO CHANGE THE LAW, AND DO NOT IPSO FACTO WORK A REPEAL.

If the power to change a law is delegated, no change is thereby made, until that power is exercised. In *Eaton* v. *Graham*, 11 Ills., 619, the facts were that a law was passed prohibiting hogs from running at large in Bureau county, and imposing upon the owner a penalty in case of its violation. By a subsequent township law the electors of each town were authorized "to determine the time and manner in which cattle. hogs, etc., shall be permitted to go at large, and what animals shall not be permitted to go at large," and also to impose penalties for the violation of town regulations. The last section repealed "any former statutes or parts of statutes, which conflict with any of the provisions of this act."

The Court, CATON, J., say:

"If the former law is inconsistent with the latter, then it is "repealed, but not otherwise. The former law says, that hogs "shall not run at large, but the latter does not say they may, "By the latter law, power is delegated to the towns to legislate "on certain subjects, but that can not affect the force of laws "previously made on those subjects, until, in the exercise of the "power delegated, another law is prescribed. The power to "make a new law, necessarily implies the power to change an "existing one on the same subject; but the grant of power does "not of itself change the law. The power to change this law "always rested somewhere; and what matter is it, as to the con-"tinuing force of the law, whether the power to change it con-"tinues exclusive in the legislature, or be transferred to an infer-"ior body? Even a change of the sovereignty of a country does "not, of itself, repeal the general laws in force there, unless they "be inconsistent with some general law of the new sovereign; "but it only confers upon the new sovereignty the power to "change the laws when it shall see fit. How much more, then,

" should a law remain in force, which the sovereign power has " enacted, and has then conferred the power to change it upon " a subordinate authority—a creature of its own creation? It " can not be that the mere act of conferring power to make a " law on a particular subject, of itself, annuls immediately all " existing laws on that subject. * * * Authority has been " given to the towns to adopt regulations on the subject, which " may be inconsistent with the existing law, but, till they exer- " cise that power, there can be no conflict of laws, any more " than if the power to pass the new law had remained exclusive " in the legislature."

In the case at bar the mere fact that the legislature has delegated to a municipal corporation, in general terms, a portion of its powers, can not affect the special law from which complainant derives its authority. The corporation might, in the exercise of those powers, pass police ordinances which would be inconsistent with the complainant's charter; and so might the legislature, in the exercise of the same powers, pass police laws which would be equally inconsistent with it. But so long as the power remained passive, whether in the legislature or in a corporation to which the legislature had delegated it, the complainant's special law would remain unimpaired. There must be some law passed in the exercise of that power which would be inconsistent with its charter, before a repeal would be effected.

IV.

IF THE LEGISLATURE HAS DELEEGATED TO THE TOWN OR VILLAGE OF HYDE PARK THE POWER TO REPEAL THE COMPLAINANT'S CHARTER, THERE HAS BEEN NO EXERCISE OF THAT POWER.

1. All of the ordinances which the town or village of Hyde Park have passed are in the most general terms, and their provisions are general in character. Ordinances are mere local

laws, and these ordinances are general laws, and as such, are subject to the rule of construction adopted by this court. They will not, therefore, be construed as repealing the complainant's special charter. The correctness of this conclusion may be illustrated by another feature of this charter. It provides that the complainant may maintain depots for the reception of offal and animal matter in the city of Chicago. That city possesses the same general powers as the village of Hyde Park, and if, in the exercise of those powers, it should adopt similar general ordinances, as it has in fact, would any one contend that such ordinances would repeal the complainant's right to maintain the depots authorized by its charter? Such a construction would violate the most elementary principles.

2. It is a general principle that, an ordinance to be valid, must be reasonable. If the ordinance relied on as repealing complainants' charter is unreasonable and therefore void, it cannot have the effect of repealing a law. It provides that "no person shall transport, haul or convey any offal, dead animals, or other unwholesome matter into, or through the village of Hyde Park." What shall be the limit of the enforcement of such an ordinance? Is every car that carries any offal, or dead animals, into or through a village so extended as Hyde park, to be stopped, and those employed on it arrested and fined, no matter what precautions may be taken to prevent offense, or how remote from habitations is the line of communication? If the village of Hyde Park may pass such an ordinance, may not every other municipality adjoining the city of Chicago do the same, and thus cut off every outlet by which the accumulation of animal matter may be removed from the city? Did the Legislature intend, in conferring these powers, to place the city at the mercy of its suburbs? Is such a sweeping ordinance a reasonable exercise of the powers conferred?

The ordinance itself must be reasonable, and if it be unreasonable, it cannot be made valid by limiting its enforcement to such

persons as the village, in its discretion, may select. If this were the case, then the rule would be, not that the ordinance must be reasonable, but that its enforcement must be so.

In *Austin* v. *Murray*, 16 Pick., 121, the town of Charleston was authorized to make rules, orders and regulations for the interment of the dead, to establish the police of the burying grounds, appoint and locate places where the dead might be buried, &c. In the exercise of this power, the town passed a by-law that no person should, without leave in writing, bring into the town any dead body or convey the same through any of the streets of the town.

The Court says: "A by-law, to be valid, must be reasonable; it must be *legi, fidei, rationi consona*. Now, if this regulation or prohibition had been limited to the populous part of the town, and were made in good faith for the purpose of preserving the health of the inhabitants, which may be in some degree exposed to danger by the allowance of interment in the midst of a dense population, it would have been a reasonable regulation. But it cannot be pretended that this by-law was made for the preservation of the health of the inhabitants. Its restraints extend many miles into the country—to the utmost limits of the town. Now, such an unnecessary restraint upon the right of interring the dead, we think essentially unreasonable. If Charlestown may lawfully make such a by-law as this, all the towns adjoining Boston may impose similar restraints, and consequently, all of those who die in Boston, must, of necessity, be interred within the precincts of the city. * * *

"A by-law entire, if it be void in part, shall be void in whole. (Cam. Dig. By-law, C. 7. 2 Ventr. 183, Rex. The Co. of Free Fisherman, 8. *T*, R. 356.")

3. We have endeavored to show that the general law under which the village of Hyde Park is now organized, cannot, by any possibility, be constructed as conferring upon that municipality power to adopt any legislation inconsistent with the com-

plainants' charter. If the town of Hyde Park can be regarded as possessing greater powers in that request, the Court will observe that all of the ordinances passed by that town which are relied on by the defendants, were passed at a time when it was expressly prohibited by its charter from exercising its sanitary or police powers, "as against the Northwestern Fertilizing Co."

V.

THE COMPLAINANT'S CHARTER IS A CONTRACT WITH THE STATE, AND THE LEGISLATURE HAVE NO POWER TO REPEAL, IMPAIR OR ALTER IT.

The general principle that Charters of Incorporation are contracts within the meaning of the Federal Constitution, is settled beyond controversy.

Dartmouth College v. *Woodward*, 4 Wheat., 518.
Neuestadt et. al. v. *Ill. Cent. R. R.*, 31 Ill.
Buffet et. al. v. *Gt. Western R. R.*, 25 Ill., 355.
State Bank of Ohio v. *Knoop*, How., 369.
Jefferson Branch Bank v. *Skelly*, 1 Bl., 436.
Bridge Proprietors v. *Hoboken Co.*, 1 Wall., 116.
Binghamton Bridge, 3 Wall., 51.
Home of the Friendless v. *Rouse*, 8 Wall., 430.
Washington University v. *Rouse*, Ibid, 439.

It is contended by appellee that chartered rights, like all other rights, are held subject to the general police power of the State. This general principle we concede; but the State has itself imposed a limitation upon the exercise of that power, and cannot, in the exercise of the police power, or any other power, pass a law which impairs the obligation of its contract.

The people of each State originally hold all the sovereign powers of that State, but when the federal union was formed, and the constitution adopted, they granted by that compact

some of those sovereign powers to the general government, while they limited their right to exercise others by other provisions of the same instrument. One of these limitations thus voluntarily imposed, was, that no State should pass any law impairing the obligation of contracts, and one of the sovereign powers thus limited, was the police power. Therefore, if the Legislature express the intention of this charter to enter into a contract, had the power to make such a contract, and bind the State by it, if there was a sufficient consideration—and there is nothing in the nature of the subject matter of the contract to render it void—the State cannot, in the exercise of the police power, or any other sovereign power, impair its obligation.

Has the Legislature expressed an intention to contract?

Under the principle of the Dartmorth College case, a charter is a contract between the State on one side and the corporators on the other, *having for its consideration the liabilities and duties* which the corporators assume by accepting it. Had this been a charter to establish a corporation to carry on a railroad, or any ordinary manufacturing business, the same instrument, conceived in the same language, would, beyond question, have been construed to be a contract. The charter as plainly expresses an intention to contract, as any bank or railroad charter could express that intention. The object which the legislature had in view in granting this charter, was, unquestionably, a public one. It was designed to meet a pressing public necessity, and to subserve the public good. Privileges and securities were offered to the corporators if they would embark in this hazardous and disagreeable business, and time was given them, with the hope that its obstacles might be overcome, and a great public good secured. On the faith of this enactment, they have invested their money and assumed the risks which the undertaking involved. "Such a grant," says Justice DAVIS (*Binghamton Bridge* case), "is a contract with mutual considerations, "and justice and good policy alike require that the protection of "the law should be assured to it."

In order to make this charter an exception to the general rule, there must be either a lack of power in the legislature to make such a contract, or something in the nature of the subject matter which renders it invalid.

Had the legislature the *power* to make such a contract?

The legislature possesses all the powers of parliament, and is sovereign, except so far as those powers are limited by the national and State constitutions.

"The power and jurisdiction of parliament," says Sir EDWARD COKE, "is so transcendent and absolute that it cannot be "confined, either for persons or causes, within any bounds. "* * * This being the place where that absolute despotic "power, which must, in all governments, reside somewhere, is "intrusted by the constitution of these kingdoms. * * * It "can regulate or new model the succession to the crown. * * * "It can alter the established religion of the land. * * * It "can change and create afresh even the constitution of the "kingdom, and of parliaments themselves. * * * It can, in "short, do everything that is not naturally impossible, and there-"fore some have not scrupled to call its power, by a figure "rather too bold, *the omnipotence of parliament*. True it is, "that what the parliament doth, no authority upon earth can "undo."

4 Co. Inst., 86.
1 Bl. Com., 160.

"The accepted theory upon this subject," says Cooley, "ap-"pears to be this: In every sovereign State, there resides an "absolute and uncontrolled power of legislation. In Great "Britain, this complete power rests in the parliament. In the "American States, it resides with the people themselves, as an "organized body politic. * * * While, therefore, the par-"liament of Britain possesses completely the absolute and un-"controlled power of legislation, the legislative bodies of the "American States possesses the same power, except, *first*, as it

" may have been limited by the constitution of the United States, " and, *second*, as it may have been limited by the constitution of " the State. A legislative act cannot, therefore, be declared " void, anless its conflict with one of these two instruments can " be pointed out."

Cooley, Const. Limit, 172.

In *Field* v. *The People*, 2 Scam., 81, this court say: "The constitution is a limitation upon the powers of the legislative department of the government."

In the case of *The People* v. *Marshall*, 1 Gilman, 672, the court in reference to the power of the legislature to extend the franchise of the State Bank of Illinois, say: " If the exercise of the power was intended to be prohibited, it is difficult to conceive why it was not forbidden in express terms. It is not pretended to be thus forbidden, and as the subject is one of legislative cognizance, the powers of the legislature must be considered plenary, unless restricted by clear and explicit language. This results from the well settled principle of constitutional law, that a State constitution is a limitation upon, and not a grant of legislative power, that all legislative power is inherent in the legislature, unless clearly withheld by the people in their organic law or prohibited by the Constitution of the United States to the State. Corporations are legitimate subjects of legislative cognizance.

So in *People ex. rel.* v. *Salomon*, 57 Ills., 60. "The whole legislative power of the State is conferred by the constitution upon the General Assembly. It follows therefore, that every subject not withdrawn from them by the constitution, and which is within the scope of eivil government, can be dealt with by that body."

If then the legislature had no *power* to make such a contract, it must be because of some limitation expressly imposed by the eonstitution of the state upon its sovereign power. It is not contended that there is any express prohibition, or even that any

prohibition can be implied from any particular or definite provision. Therefore, there can be no prohibition unless it can be derived from such general considerations as natural right, public policy, etc., and not from the constitution itself.

But it is well settled that a court cannot declare a law prohibited by the constitution or void on such general grounds.

" Nor can a court," says Cooley, " declare a statute unconstitutional and void solely on the ground of unjust and oppressive provisions, or because it is supposed to violate the natural, social, or political rights of the citizen, unless it can be shown that such injustice is prohibited or such rights guarranteed or protected by the constitution. * * * The rule of law upon this subject, appears to be that except where the constitution has imposed limits upon the legislative power, it must be considered as practically absolute, whether it operate according to natural justice or not in any particular case. The courts are not the guardians of the rights of the people of the state, excedt as those rights are secured by some constitutional provision which comes within the judicial cognizance. * * * The Judiciary can only arrest the execution of a statute when it conflicts with the constitution. It cannot run a race of opinions upon points of right, reason and expediency, with the law-making power. Any legislative act which does not encroach upon the power apportioned to the other departments of the government, being *prima facie* valid, must be enforced, unless restrictions upon the legislative authority can be pointed out in the constitution and the case shown to come within them. * * * If the courts are not at liberty to declare statutes void, because of their apparent injustice or impolicy, neither can they do so because they appear to the minds of the judges to violate fundamental principles of Republican government, unless it shall be found that those principles are placed beyond legislative encroachment by the constitution. * * * Nor are the courts at liberty to declare an act void because, in their opinion, it is

opposed to a *spirit* supposed to pervade the constitution, but not expressed in words."

The charter then clearly expresses an intention to contract. The contract was founded upon a mutual consideration, and the Legislature had ample power to make such a contract.

VI.

IS THERE ANYTHING IN THE NATURE OF THE SUBJECT MATTER OF THE CONTRACT WHICH RENDERS IT INVALID?

1. We have shown that the Legislature is limited and controlled by no law except the State and Federal Constitutions. There is no unwritten law to restrain its action. While courts may declare the contract which an individual may make, void, on the ground of public policy, we deny their right to declare a contract which the Legislature has deliberately made, void on account of any general considerations. The Legislature is paramount in its power to pass laws which embody the elements of a contract, as in every other power, except so far as limited by the Constitution. Courts cannot question its motives or determine the expediency, justice or policy of its laws.

2. But there is nothing in the nature of this contract which in any just sense is contrary to public policy. It was designed to promote the general good, and has conferred incalculable benefits upon a large portion of the public affected by it. It has also been advantageous to the people of the State and generally of the North-west, by the economy the business dependent upon it has introduced into the transportation to the East of their surplus animal productions. Thus, while the business established may have been offensive in character to a part of the community, the many have been benefited and the public good has been promoted.

Purity of air and water are natural rights, but one individual

may acquire, as against another, the right to pollute air or water, by grant express or implied, or by prescription, and the courts will recognize and enforce the grant. (Goddard on Easements, pp. 22, 135, 175.) If there is nothing in the nature of such a contract which renders it invalid as between individuals, by what authority will the courts assume to declare it void, when deliberately made by the Legislature in the exercise of its absolute power and to conserve the public good ?

It was contended by appellees in the court below that all rights or grants are held or acquired from the State, subject to an *implied* reservation of its general police power. We admit the correctness of this principle, so far as the implication is consistent with what is expressed, but insist that there can be no *implied* reservation when the language used leaves no room for *implication.* It would be a contradiction of terms to say that while one thing is *expressed*, the contrary is implied ; that where the Legislature enters into a binding contract, which, in *express terms* authorizes a certain business to be carried on for a definite term of years, the authority is conferred and accepted, subject to an *implied* reservation on the part of the Legislature of the right to take away that authority when it pleases. Hence, while corporations, like individuals, are subject to police regulations and take their rights subject to the general police power of the State, it is settled law, as stated by Judge COOLEY, that such police regulations " *must not be in conflict with any of the pro-*
" *visions of the charter of the corporation, and must not, under*
" *pretense of regulation, take from the corporation any of the*
" *essential rights and privileges which the charter confers. They*
" *must be police regulations in fact, and not amendments of the*
" *charter in curtailment of the corporate franchise.*"

Cooley's Const. Limits, 577.
G. & C. U. R. R. Co. v. *Appleby*, 28 Ills., 283.
Washington Bridge Co. v. *State*, 18 Conn., 53.
Pingrey v. *Washburn*, 1 Aiken, 264.
Miller v. *N. Y. & E. R. R. Co.*, 21 Barb., 577.

People v. *Jackson & Mich. R. R. Co.*, 9 Mich., 307.
People v. *Platt*, 17 Johns., 195.
Bailey v. *R. R. Co.*, 4 Harring, 394.
Miller v. *N. Y. & Erie R. R.*, 21 Barb., 574.
Conway v. *Taylor's Ex. Rs.*, 1 Black, 612.
State v. *Neves*, 47 Me., 189.
State v. *Jersey City*, 5 Dutcher, 170.

The police power is merely relative and difficult to define, because its boundaries are marked by occasions and circumstances. What is a nuisance in one place is not in another. That which is a nuisance when unauthorized, ceases to be a nuisance when authorized by law. That act which is lawful under certain circumstances, becomes unlawful under different circumstances. The act which would be laudable and proper under certain conditions, under others becomes illegal and punishable by the State, *in the exercise of this police power.*

"The police power of a State is a system of internal *regulation.*" (Cooley Const., Limit, 572.)

A railroad crossing a highway without legislative authority, is a nuisance, subject to removal by the State in the exercise of its police power. (Dillon's Mun. Cor., S. 561, cases cited.) Confer upon it a charter and it is no longer a nuisance. Telegraph poles erected by a telegraph company in a highway, or a mill-dam or a bridge, constructed without legislative authority, are nuisances. (Dillon's Mun. Cor., S. 552, and cases cited.) But, if charters are conferred upon the companies erecting these nuisances, what were before nuisances cease to be such. Before the charters were granted, these obstructions were nuisances, because they were dangerous, productive of disease, or obstructions to the use of the highway by the public. Are these essential features changed by the charter? Is the railroad any the less an obstruction? Is it any the less dangerous to life or limb? Is the mill-dam any the less productive of disease, or

are the bridge or telegraph poles any the less objectionable to the public? Before they were chartered they could be removed as nuisances; after they were chartered they could only be regulated, and if the legislature should attempt to repeal their charters, courts would hold their repeal invalid.

The same argument was also urged by appellees in another form. It was contended that the Legislature could not make such a contract as is embodied in appellant's charter, because it would thereby impair one of the sovereign powers of its successors.

This argument proves too much; one of the sovereign powers with which each Legislature is vested, is the power to repeal objectionable laws. The reason of the rule, that any Legislature cannot pass irrepealable laws is, that every act of that character would, to a certain extent, reduce the sovereign power of subsequent Legislatures.

Cooley's Const. Limit., 125.

But the states have, by the federal constitution, created a binding exception to this rule. Whenever the law is, in its nature, a contract, it cannot be repealed, although by every such contract the soverign power of subsequent Legislatures ia reduced and limited.

Cooley's Const. Limit., 126.

Therefore, charters which limit the exercise of plainly defined and recognized soverign powers, have been repeatedly sustained as being contracts which would not be repealed or impaired. Thus, the power of taxation is a soverign power, but the Legislature may bind itself not to tax a corporation, and an exemption from taxation inserted in a charter is a part of the contract, though it has the effect to grant a waw or limit the power of taxation.

New Jersey v. *Wilson*, 7 Cranch, 164.
Piqua Banker v, *Koop*, 16 How., 369.
Home of Friendless v. *Rouse*, 8 Wall., 438.

Washington University v. *Rouse*, Id., 439.
Atwater v. *Woodbridge*, 6 Conn., 223.
Herrick v. *Randolph*, 13 Vt,, 525.
State Bank v. *People*, 4 Scam., 303.
Ills. Cent. R. R. v. *McLean*, 17 Ills., 291.

There is no principle of law which makes the police power more sacred than any other soverign power, and we might rest the argument on this point — upon this instance just cited, and which is sustained by this Court. But there is a variety of adjudicated cases in which acts of legislatures clearly limiting and restraining the future exercises of their police powers have been sustained as contracts, the obligation of which could not be impaired.

it is a part of the police power of the State to authorize and control the construction, location and management of roads, bridges and ferries. Charles River Bridge case, 11 Peters, 546. Cooley's Const. Limit, 588. Yet an act incorporating a company to build a toll bridge, etc., and providing that it should not be lawful for any person to erect a bridge within certain limits, is a contract binding on the Legislature and it cannot authorize another bridge to be built within those limits.

Binghampton Bridge, 3 Wall., 52.
Bridge Proprietors v. *Hoboken*, 1 Wall., 131.

So a charter giving to a railroad company the exclusive right of running a railroad between certain points for thirty years is a contract, and if the State authorizes the construction of another road between the same points, it impairs the obligation of its contract.

B. & L. R. R. v. *S. & R. R. R.* 2 Gray 2.

A charter authorizing a company to build a bridge with a draw of a certain width is a contract, and a subsequent act requiring the draw to be of greater width, to meet the demands of navigation, impairs the obligation of the contract.

Washington Bridge Co. v. *State*, 18 Conn., 52.

An exclusive ferry right is a contract which cannot be impaired by a subsequent inconsistent grant.

Conway v. *Taylor's Exrs*, 1 Black., 612.
Costar v. *Brush*, 25 Wend., 630.
Mt Roberts v. *Washburn*, 10 Minn., 23.

In the cases cited population, in the communities where these monopolies were estalished, had increased, and the public wants demanded new bridges, ferries and roads. If there had been no previous grants of exclusive privileges, the legislature could legally have created nwe corporations to meet the necessities of the public; but because it had made these exclusive contracts it was powerless to advance the public interests, except it first condemned such franchises by the right of eminent domain.

As we have said, railroads running along or across public highways are nuisances unless chartered, and it would be a lefiitimate exercise of the police power to abate them as such. But if the legislature confers a charter upon a railroad company, and subsequently passes a law authorizing the removal of its track, as an obstruction of the public highway, such a law impairs the obligation of its contract. It may regulate by the reasonable exercise of police powers, but it can not impair the essential rights conferred by the charter.

From the authorities cited and the principles which they establish, we conclude that the complainant's charter is a contract, and that none of the rights conferred by it can be impaired by subsequent legislation. It may be subjected, in the exercise of its rights, to fair and resonable *regulations*, but every law or ordinance, which in effect impairs any one of these rights, is a violation of the obligations of the contract aud is void.

VII.

IF THE NECESSITIES OF THE PUBLIC DEMAND THAT THE APPELLANT'S FRANCHISE BE TAKEN AWAY, THE APPROPRIATE REMEDY IS BY CONDEMNATION UNDER THE RIGHT OF EMINENT DOMAIN.

It is settled qy an unbroken current of authorities that corporate franchises are subject to condemnation in the exercise of this right. "Corporate franchises," says Cooley, "and, generally, it may be said legal and equtable rights of every description, are liable to be thus appropriated."

Cooley's Const. Limit, 526, and cases cited.
Piscataqua Bridge v. *N. H. Bridge*, 7 N. H., 35.
Central Bridge Corporation v. *Lowell*, 4 Gray., 474.
West River Bridge v. *Dix*, 6 How., 507.
Armington v. *Barnett*, 15 Vt., 745.
Boston Water Power Co. v. *B. & W. R. R.*, 23 Pick., 239.

In *Piscataqua Bridge* v. *N. H. Bridge*, 7 N. H., 64, the exclusive right to erect a bridge within certain limits was granted to a corporation. By a subsequent act, another bridge was authorized to be built within the same limits.

The Court says:

"Cases may exist where, owing to a change in the population, business, and intercourse of the country, the public interest may require the opening of new avenues within the limits of such exclusive grants, and in which the individual right should be made subservient to the public use; but this may be done without a violation of the public faith. Whatever the public require they are able to pay for—and it is not for the public interest that the grants of the government should be held good so long as there is no desire to interfere with them—good while

they are onerous to the grantee, and invalid when others may wish to participate in the benefits derived from them."

In *Boston & Lowell R. R. Co.*, v. *Salem & Lowell R. R. Co.*, 2 Gray, 36, the Boston and Lowell road had the exclusive right by charter, to run a railroad between certain points for a definite period. Shaw, C. J., said :

" If, in the great advancement of public improuements, in the great changes which take place, in the number of inhabitants, in the number of passengers and quantity of property to be transferred, or in great and manifest improvements in the mode of travel and locomotion, it becomes necessary to appropriate, in whole or in part, a franchise previously granted, the existence of which is recognized and admitted, we can not doubt that it would be competent for the legislature, in clear and express terms, to authorize the appropriation of such franchise, making adequate compensation for the same."

THE RIGHT TO EQUITABLE RELIEF FOLLOWS FROM THE PRECEDING PROPOSITION, AND THE FACTS DEVELOPED BY THE EVIDENCE.

The ordinance which the village was especially enforcing at the time the injunction was obtained, is as follows :

" No person shall transport, haul or convey any offal, dead animals, or other unwholesome matter or material into or through the village of Hyde Park, and any person who shall be in charge of, or employed on, any train or trains running into or through the village of Hyde Park, shall be subject to a fine of not less than five, nor more than fifty dollars for each offense."

The offal, as previously stated, is collected in Chicago, and can in no way be taken to the factory except by the Pittsburgh and Ft. Wayne Railroad, and into the village of Hyde Park. Mr. Cady, the President of the Trustees, says the arrests were made by the authority of the village under the ordinance before

named, and that they intended to follow up the workmen daily, and arrest them daily, until they should drive out or destroy the complainant's business. (Record 114). The proof is that the workmen on the train arrested were taken, and were to be taken, for trial each day, some six miles away, and were compelled in the mean time to leave their trains standing upon the track, and that if the arrests were to be thus continued, no business, such as its charter authorized, could be carried on by the complainents in any manner whatever. Under its charter the adpellants had contracted with the packers to carry off and take care of all their offal, amounting to four-fifths of all which that industry produced.

They had also contracted under the same protection, to sell and deliver the Fertilizer manufactured. Both of these classes of contracts had to be violated, and besides the substance of the property which the act in controversy brought into existence, had to be sacrificed. We suggest that no facts could better illustrate the nature of the irreparable injury, or assuming we are right in our positions, no facts could more plainly demand Equitable interference.

In *Boston and Lowell R. R. Co.* v. *Salem and Lowell K. K. Co.*, supra, where an attempt was made to interfere with the complainants' exclusive franchise, Chief Justice Shaw said: "The subject of controversy is a mere naked incorporeal right, claimed by the plaintiffs to have and enjoy a right to maintain a railroad, and take fares and profits thereof, a right created and granted to them by the government of the State. It is a right or title which, if it exists at all, is purely a statute right; it is created by law; it exists only in contemplation of law; it is invisible, intangible and incapable of a physical possession, and depends on the law for its protection. * * * If the right exists and has been invaded, the appropriate and specific remedy, that which shall prevent the continued invasion, is by injunction, and this can be afforded only in equity."

We assume that the right of equitable relief, upon our theory of this case, is too clear and elementary for extended argument. We, however, add from the list which might be cited the following authorities :

Croton Turnpike v. *Kidder*, 1 Johns, Ch., 611.
Livingston v. *Van Ingen*, 9 Johns, 506.
High on Injunctions, Sec. 318, and cases cited.

LEONARD SWETT.

Chicago, Oct. 10, 1878.

Supreme Court of the United States.

No. 245.

IN ERROR TO THE SUPREME COURT OF THE STATE OF ILLINOIS.

The North Western Fertalizing Company,

Plaintiff in Error,

vs.

The Village of Hyde Park et al.

BRIEF FOR APPELLANTS.

MATT. H. CARPENTER,
BLACKBURN & LAMON,
Counsel for Appellants.

Supreme Court of the United States.

No. 245.

IN ERROR TO THE SUPREME COURT OF THE STATE OF ILLINOIS.

THE NORTH WESTERN FERTALIZING COMPANY,
Plaintiff in Error,
vs.
THE VILLAGE OF HYDE PARK ET AL.

Assignment of Errors.

1. The Court below erred in dismissing the Bill of Complaint in this cause.

2. The Court below erred in dismissing the Bill of Complaint in this cause, because the bill shows that the act of the legislature amending the charter of Hyde Park, and the ordinance passed in pursuance thereof, in legal effect, impaired the obligation of the contract between the Appellants and the State of Illinois, embodied in the charter and completed by the charter, and the acceptance thereof by appellants, and the organization by appellants under said charter.

Statement of Case.

The appellants filed its Bill in Equity in the Circuit Court of Cook County, Illinois, in January, 1873, against the said defendants, in which it alleged among other things, the following, to wit: That on the 8th day of March, 1867, an act

their railroad train in which was being transported this said offal matter, and were forcibly taken before a Justice of the Peace, six miles distant, and was by said magistrate fined for a pretended violation of the police regulations of said village. And immediately upon the conclusion of said trial the said police force were ordered to arrest the employees of the next train of cars carrying such offal, &c., so that appellants were wholly unable to transport said offal, &c., from their depots to their said works by reason of said continued hinderence and interference by said Trustees and the police under their direction, to the extent of breaking up of appellant's business, under the charter aforesaid; and that if such interference, annoyance, and hinderence were persisted in it would inevitably result in irremediable injury, loss, and damage, and in effect work a confiscation of said property.

It was also alleged that appellant's rights, privileges, and immunities herein set forth, appertained and belonged to its share-holders, as citizens of the United States, and that such rights, privileges and immunities were guaranteed to appellants and the said share-holders by the United States and the laws thereof. And that the village of Hyde Park and the Trustees thereof, were, by the means above set forth, attempting to deprive your petitioner and its share-holders of such rights, privileges, and immunities, under and by virtue of the ordinance herein set forth, and the illegal use of the police force thereunder, contrary to the Constitution of the United States and the laws thereof.

That the President of the Board of Trustees of the Village of Hyde Park, and his Associate Trustees, were made parties defendants to the bill, and required to answer, with prayer for an injunction against them, restraining them, by an order of said Circuit Court, from in any way or manner interfering with, arresting, hindering or disturbing your petitioners or your petitioners' employees in carrying or transporting by railroad, or otherwise, any offal or animal matter from any of its depots aforesaid to its works above described or

to said works, or in manufacturing said material into an agricultural fertalizer or other chemical product, or in any other manner prosecuting the business of your petition under its act of incorporation, and prayed for general relief. It is further shown that after the filing of said bill the said Circuit Court thereupon ordered that a writ of injunction and writ of summons issue out of said court as prayed for, and such writ of injunction and writ of summons were duly issued and served on said defendants. Afterwards defendants filed their answer to said bill.

Afterwards, to wit, on the 30th day of January, 1873, cause was heard by the Circuit Court, upon bill, answers and proofs, and the court denied the relief prayed for and dismissed said suit out of court, whereupon an appeal was duly taken and perfected to the Supreme Court of the State of Illinois, and afterwards, to wit, on the 24th day of September, 1874, the said Supreme Court rendered a judgment in said cause, that the decree of the said Circuit Court dismissing the bill, and denying the relief prayed for therein, be affirmed. And on the 24th day of October, 1874, a writ of error was allowed and filed in the Supreme Court of the United States.

Statement of Facts.

1. The North Western Fertalizing Company was chartered March 8th, 1867. (See Record, page 16.)

2. Chicago is the largest market in the world for slaughtering and packing animals for human consumption. (See Record, page 32.)

3. From the peculiar geological and topographical location of the city of Chicago, there is no other practicable means to rid the city of the debris and offal of slaughter houses and other nauseous matter than that adopted by the North Western Fertalizing Company. See testimony of W. N. Thompson, page 38 of the Record, who says: "Chicago

has no place where this material could be *dumped;* if deposited in the lake it will float on the surface of the water, besides the current of the lake opposite and near the city makes towards the shore which would bring the deposits and lodge them along the margin of the lake in the vicinity of the city. On page 41 of the Record, Joseph Lester testifies: "Chicago has no natural drainage except the river, and that is sluggish, and empties into the lake within the city."

Dr. Ranch, page 66 of the Record, testifies: "that the amount of offal produced in Chicago cannot practically be buried, for as soon as the decomposition takes place the gasses escape through the covering into the atmosphere. There is great trouble by parties attempting to bury within the city limits."

4. The amount of offal necessary to be disposed of in Chicago is enormous. Lewis Wahl, page 32 of the Record, testifies: "that in the year 1873 there were slaughtered in Chicago of hogs alone 1,345,000, and on page 37, he testifies: "that amount of slaughter by the city butchers not reckoned in the reports of the packing season, is of cattle 150,000; hogs, 200,000; sheep, 200,000; calves, 20,000." On page 45 of the Record, R. W. Rawlston testifies that the average amount of offal received at the works of the North Western Fertalizing Company is 150 tons per day, and on page 46, the same witness says: "that the Tank offal from the slaughtering of the city of Chicago is 21,000 tons, and 2,000,000 gallons of blood."

5. To meet these difficulties a charter was granted by the Legislature of Illinois, to appellants as aforesaid, who were legally organized on the 9th day of December, 1867, (see Rawlston's testimony, page 42 of Record,) $250,000 of stock being subscribed and paid in, and the Company has since been in successful working order without molestation or hindrance, except the illegal and unjustifiable interference

of the authorities of the village of Hyde Park complained of in petitioners' bill.

6. The North Western Fertalizing Company have, in the exercise of its corporate rights, used the greatest care and the most approved appliances known to science and art to prevent their factory and business from being offensive. (See page 40 of the Record.) John Lester testifies: "I visited the North Western Fertalizing Company; I went all through the establishment, and examined the material and the manner in which they handled material; have visited other like establishments in New York and New Jersey; considering the business that was carried on, the North Western Fertalizing Company, when I visited it, was in good condition, and looked very clean. So far as I could judge the Company was carried on as well as that business can be done. * * * * The Company has taken more trouble and pains, and spent more money than anybody I know of to carry on this business without offensiveness."

7. On page 55 of the Record, Fredrick Mahla, a scientific expert, testifies that he has examined the works of the Company, and he does not think that such business could be carried on without the production of unpleasant orders. I could not suggest any improvement in the present mode of manufacturing.

8. On page 60 of the Record—

Marc Delapontaine, an expert and practical chemist, says it is possible that some other methods could be devised to treat the same material, but none so far as I can see have received the sanction or experience on a large scale. I don't know of any that would do better, and I have tried to post myself on this subject.

9. On page 63 of the Record—

William Fustman testifies: it is my duty to receive all the animal matter at the depot at the Union Stock Yards

for the North Western Fertalizing Company. I am there every day. In the summer time the cars are always cleaned and scraped; by cleaning I mean washed.

10. On pages 48–'9 of the Record, R. W. Rawlston, Vice President of the Company, says in substance: As a rule they get their material from the packing houses on the same day as it is delivered. The cars for its transportation go out daily. The material is delivered as soon as it comes from the tanks. It is transported in box cars, about four feet deep, five feet wide, and the length of the car. These boxes are put on a flat car, arranged for a cover, and usually covered in the summer season. In the winter the bulk of the material being frozen it is unnecessary to cover it. A man is kept at the factory to clean and deodorize the cars.

11. On page 68, C. M. Cady, a witness for defendants, testifies "that in the fall of 1867 there were a few houses at Ainsworth's Station, and a few scattered farm houses beyond it, but in the main it was a desolate region. Almost everything in that country has grown up since 1867, except a few tumble-down shanties that were about Ainsworth proper." And on page 66 of the Record, Peter Geheran: "I have counted the houses in Ainsworth (where this factory is located) and there are 118 altogether; 45 of them are occupied by men working for appellants. It is over three miles to the next settlement, and there is no other cluster of houses in that region of country.

12. On page 57 of the Record, C. M. Cady swears that he was president of the Board of Trustees of the village of Hyde Park, and had been for five years; that he wrote the letter annexed to the Bill (to which reference is made on page 13 of the Record.) It was published in the city papers. It was my intention by executing the ordinance preventing the taking of offal into the village of Hyde Park, and if uninterrupted I intended to pursue these arrests, from time to time,

until it would be compelled to stop from pure strangulation. If this injunction is dissolved I intend to renew the war. * * * * After the arrest of the employees, who were brought before Justice Hoyne I instructed the police to go back again to the factory to make new arrests when the next train should arrive. I instructed them to bring the men thus arrested for trial to that portion of Hide Park, which is between five and six miles from the factory.

13. See the Ordinances of Hyde Park, on pages 50, 51, 52, 53, and 90 of the Record.

Points.

I.

The charter of the appellant and its acceptance, and the organization of the Company under the charter completed a contract between the State and the appellants.

Dartmouth College vs. Woodward, 4 Wheaton, 578.

II.

Conceding the power of the State subsequent to this contract to subject the appellants, or to authorize Hyde Park to subject them to police regulations, such for instance as regulating the hours of day or night in which the appellant should convey offal to their manufactory, or to prescribe the kind of vessel or cars in which it would be conveyed. It is manifest that the ordinance in question was not a regulation, but a total prohibition of the business authorized by the charter.

Chartered rights are beyond the reach of the Legislature to destroy, and what the Legislature cannot do directly it cannot do indirectly. The law and ordinance in question absolutely prohibit the appellants from exercising the franchise conferred upon them by their charter, and therefore impair the obligation of the contract embodied in the charter.

III.

When the practical effect and operation of a law impairs the obligation of a contract it is void, without regard to the form which the law may assume.

McCracken vs. Hayward, 2 Howard, 608.
Brownson vs. Kinzie, 1 Howard, 311.
Passenger Cases, 7 Howard, 283.

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